

first Ceremony used for devoting a Person to God and the Church, by presenting him to the Bishop, who gives him the first Degree of the Clericature, by cutting off Part of his Hairs, with certain Prayers and Benedictions. Some hold the *Tonsure* a particular Order; others, as *Loyseau*, only the Mark and Form of ecclesiastical Orders in general.

The *Roman Catholic* Doctors are of Opinion, that the *Tonsure* is of apostolical Institution, and is thus asserted by the venerable *Bede*, lib. 1. *Histor. Anglican.* c. 122. in these Words, *neque ob id tantum in Coronam attondamur*, says he, *quia attonsus est Petrus, sed quia Petrus in Memoriam Dominiæ Passionis ita attonsus est*, i. e. we do not wear the *Tonsure*, says he, only because *Peter* has worn it, but because he has worn it in Memory of Christ's Passion. *M. Chamillard*, Doctor and Professor of Theology in the College of *Sorbonne* at *Paris*, has supported that Sentiment, with the Authority of several other ancient Fathers of the Church, in his Book, intituled *De Coronæ Tonsurâ, & habitu Clericorum*.

In Fact, the clerical *Tonsure* is mentioned by *St. Isidore*, of *Seville*, as of apostolical Tradition, in which he has followed several other Authors; and there is nothing so often and so strictly ordained by the ancient and modern Council to distinguish the Clerks from the Laicks, and to tell to those that they have no longer a Part in this World, and that they ought to deprive themselves, not only of the illicit Pleasures, but likewise of those which are permitted to others; that Christ is their Portion and Inheritance, as they are the Portion and Inheritance of Christ; that the Name of *Clerk* teach them that Truth; and if they will interpret it, they'll soon learn how much they are to be free of all terrestrial Affections. A Person is capable of the *Tonsure* at seven Years of Age; hence a Benefice of *simple Tonsure* is such a one as may be enjoyed by a Child of seven Years old.

The christian Clergy was divided even before the Council of *Nice* into secular and regular, since several of the Bishops, who assisted at that Council, were Monks, and even the most distinguished and respected among them, as were *Paphnucius*, already mentioned, and *Spiridion*, who had both suffered the Persecution of the Pagan Emperors, with a great Courage, and marvellous Constancy; it might even be said to the Honour of the Monks of those Days, that they were the greatest Support of the Christian Religion, and their Solitudes, a School for the Practice of all the christian Virtues; and even at present there is no Church among those which call themselves Christians, either in the *East* or *West*, except those who have embraced the Reformation of *Luther* and *Calvin*, whose Clergy is not divided into secular and regular Clergy, though *Chambers* would insinuate that the *Romanists*, as he calls them, are the only one who admit of that Distinction. Those *Romanists* do not deny that several Abuses have been introduced in the Cloisters, but say at the same Time, that there are as many introduced in the secular Sanctuary, even at the Foot of the Altars of the Living God, and as it would be thought unjust to abolish the whole secular Clergy, under the specious Pretence of reforming those Abuses, it would be as unjust to abolish the regular, because there are found among them few Monks as bad and vicious as *Luther* was.

The Catholics acknowledge Christ for invisible Chief of both their secular and regular Clergy, and the Pope for the visible one, who is addressed under the Term Holiness and Beatitude; and is chosen by the Cardinals out of their own Body. His See is ordinarily at *Rome*, whence he issues out his Orders, called *Bulls* and *Briefs*, throughout the Catholic World. They respect him not for the Pomp and Magnificence of his Court, but because they consider him as the Successor of *St. Peter*, in that See, whom, they believed, Christ had appointed the visible Chief of his Church, when he told him in particular, *feed my Sheep, feed my Lambs*. They imagine that the Splendor and Magnificence, which have, for several Centuries past, ac-

companied that eminent Dignity, and which those, who from Time to Time, have alledged as one of the Prettexts, they wanted to cloak with, their Ambition of making themselves Chiefs of Parties could not deprive him of his spiritual Power, no more than *St. Peter* denying Christ, could deprive him of the Apostolate, after Christ had assured him, that he had prayed for him, that his Faith should not fail. That the Princes who have invested him with his temporal Power, have done it to render him the more capable of being the Arbiter of their Differences, and to arm him against the frequent Assaults of the Enemies of the Church. That those same Princes are so conscious, that he can make no other Use of that Power, that when, through Fragility he has in common with the rest of Mankind, he attempts to abuse it, they do not pretend to break that Union which should subsist between the Chief of the Church, and the Members, by opposing him; since the Pope is not infallible, even in religious Matters, and can be judg'd, and condemn'd by a Council, if he proposes, or maintains any Proposition contrary to the Christian Truth.

The CARDINALS compose the Pope's Council, and are declar'd by a Constitution of Pope *John VIII.* to represent the seventy Disciples, who, under the Pope, who represents *Moses*, decide private and particular Differences. But, says the honest *M. Godeau*, this is no longer the Function to which they apply themselves; for they are rais'd to such a Pitch of Grandeur, that they look on that Employment as beneath them, persuading themselves that they are above the Bishops, who, notwithstanding, are the true Successors of the Apostles.

Cardinals, in their first Institution, were only the principal Priests, or Incumbents of the Parishes of *Rome*. In the primitive Church, the chief Priest of a Parish, who immediately follow'd the Bishop, was call'd *Presbyter Cardinalis*, to distinguish him from the other inferior Priests, who had no Church, nor Pre-ferment: The Term was first apply'd to them in the Year 150; others say, under Pope *Sylvester*, in the Year 300. These Cardinal Priests were alone allow'd to baptize, and administer the Eucharist. When the Cardinal Priests became Bishops, their Cardinalate became vacant; they are then suppos'd to be rais'd to a higher Dignity. Under Pope *Gregory*, Cardinal Priests, and Cardinal Deacons, were only such Priests or Deacons as had a Church or Chappel under their Care; and this was the original Use of the Word. *Leo IV.* in the Council of *Rome* held in 853, calls them *Presbyteros sui Cardinis*, and their Churches *Parochias Cardinales*.

Cardinals continu'd on this Footing till the eleventh Century; but as the Grandeur and State of his Holiness became extraordinarily augmented, he would have his Council of Cardinals make a better Figure than the ancient Priests had done. It is true, they still preserv'd their ancient Title, but the Thing express'd by it was no more. It was a good while, however, ere they had the Precedence over Bishops, or got the Election of the Pope into their Hands; but when they were once possess'd of those Privileges, they soon had the red Hat, and Purple; and growing still in Authority, became at length superior to the Bishops, by the sole Quality of being Cardinals. *Du Cange* observes, that originally there were three Kinds of Churches; the first, or genuine Churches, were properly call'd *Parishes*; the second *Deaconries*, which, as we have observ'd already, were Churches join'd to Hospitals, and serv'd by Deacons; the third were simple *Oratories*, where private Masses were said, and were discharg'd by local and resident Chaplains. He adds, that to distinguish the principal, or Parish Churches, from the Chappels, and Oratories, the Name *Cardinales* was given them. Accordingly, Parish Churches gave Titles to Cardinal Priests; and some Chappels, also, at length, gave the Title of Cardinal Deacons.

Others observe, that the Term *Cardinal* was given not only to Priests, but also to Bishops and Deacons, who

who were attached to certain Churches, to distinguish them from those who only serv'd them *en passant*, and by Commission. Titulary Churches, or Benefices, were a Kind of Parishes, *i. e.* Churches assign'd each to a Cardinal Priest, with some stated District depending on it, and a Font for administering of Baptism, in Cases where the Bishop himself could not administer it. These Cardinals were subordinated to the Bishops, and, accordingly, in Councils, particularly that held at Rome in 866, subscribed after them. It was not, however, at Rome only, that Priests bore this Name; for we find there were Cardinal Priests in France: Thus the Curate of the Parish of St. John des Vignes, is call'd, in old Charters, the Cardinal Priest of that Parish.

The Title of Cardinal is also given to some Bishops, *quatenus* Bishops; for Example, to those of Mentz, and Milan. The Archbishop of Bourges is also, in ancient Writings, call'd Cardinal; and the Church of Bourges a Cardinal Church. The Abbot of Vandome calls himself *Cardinalis Natus*.

The Cardinals are divided into three Classes, or Orders, containing six Bishops, fifty Priests, and fourteen Deacons; making, in all, seventy, which constitute the sacred College. The Cardinal Bishops, who are, as it were, the Pope's Vicars, bear the Title of the Bishopricks assign'd to them; the rest take such Titles as are given them. The Number of Cardinal Bishops has been fix'd, but that of Cardinal Priests and Deacons, and consequently the sacred College itself, is always fluctuating. Till the Year 1125, the College consisted only of fifty-two, or fifty-three; the Council of Constance reduc'd them to twenty-four; but Sixtus IV, without any Regard to that Restriction, rais'd them again to fifty-three; and Leo to sixty-five. Thus as the Number of Cardinal Priests was anciently fix'd to twenty-eight, new Titles were to be establish'd, in Proportion as new Cardinals were created. For the Cardinal Deacons, they were originally no more than seven, for the fourteen Quarters of Rome; but they were afterwards increas'd to nineteen, and again diminish'd.

Papebrock conjectures, that it was Honorius IV. who first introduced Bishops into the sacred College, by admitting Bishops Suffragans of the Pope, to whom, of Right, it belong'd, to name him; and of these constituting the first Class of Cardinals. The Cardinals began to wear the red Hat at the Council of Lyons, in 1243, the Decree of Pope Urban VII; whereby it is appointed, that the Cardinals be address'd under the Title of Eminence, is of the Year 1630; till then, they were call'd, like the Bishops, *Illustissimi*. Each Order of Cardinals has its Dean, or Chief; the Dean of the Cardinal Bishops is always the Bishop of Ostia.

The sacred College is always compos'd of Cardinals of different Nations, at the Nomination of the Princes, whose Subjects they are; but there is always a greater Number of Italians, than of all the other Nations put together, that they may have the Majority on their Side, for the Election of a Pope; tho' those Italian Cardinals are not above being brib'd by the Prince, who bids most for to have a Pope in his Interest.

The Revenue of the holy See is reckon'd to amount to very near twenty millions of Livres a Year, which is above a million Sterling; the most considerable Part whereof is rais'd on the Catholic Countries, for Expedition of Bulls, Immunities, Dispensations, &c. which shews, that St. Peter's Bark has been employ'd in diving for Riches, as well as in fishing for Souls. Those immense Riches are but too often very ill husbanded, and instead of being employ'd, according to the Intention of the Church, to facilitate the Propagation of the Gospel, for the Support of the inferior Clergy, to relieve the Poor, and deliver Christians from their Slavery under the Enemies of the Christian Name; they are lavish'd away, either in profuse, and vain Expences; or to enrich the Relations of the

reigning Pope; which is a Scandal to the Dignity of his Chair, and to the Holiness of his Profession.

Besides the Pope, and the Cardinals, the superior Clergy of the Roman Church consists of Archbishops, Bishops, Abbots, and Priors; for the Archbishop of Rome was always the sole Patriarch of the Latin Church; as for Primates, there are none, but of Name only.

An ARCHBISHOP, is a metropolitan Prelate, who has several Suffragans Bishops under him. The Archbishop can convoke his Suffragans into a Council, and that Council is call'd provincial. No Bishop can be consecrated, in his Province, but by himself, or at least by his Leave. He has the Precedence of all Bishops, and has the double Cross carry'd before him, instead of the Staff carry'd before Bishops. All his Suffragans depend on him, and appeal to him. This Term of Suffragan was never heard of before the eighth Century. Some derive it hence, that the Bishops are to help and assist the Archbishop; *quia Archiepiscopo Suffragari & assistere tenentur*. Others say, it is because ecclesiastical Matters are determin'd by their Votes, or Suffrages; & *Suffraganei dicuntur quia eorum Suffragiis Causæ Ecclesiasticæ judicantur*. Others hold, that they are call'd Suffragans, because when call'd by the Metropolitan to a Synod, they have a Right of Suffrage, or of voting; or because they could not be consecrated without his Suffrage or Consent.

The twenty-fourth Canon of the Council of Constantinople, call'd, by the Catholics, the eighth General Council, condemns the Metropolitans, who thro' Indolence, or Vanity, discharg'd themselves of their Functions on other Bishops; whereas they are oblig'd to preach themselves, to instruct the People, and to administer the Sacraments. This is practis'd to this Day, by the ecclesiastical Electors of the Empire, who are very great temporal Princes, and have all suffragan Bishops to exercise the ecclesiastical Functions. This Disorder seems to have been introduc'd in the Church by Benedict IX, who, says Sigebert, being ignorant, caused another Pope to be consecrated with him, as his Coadjutor, to exercise his Functions. Peter Damianus, who liv'd at that Time, had a Suffragan, call'd Albert, but it was only to help him in his pastoral Functions.

The twenty-sixth Canon of the same Council decrees, that the Priest, or Deacon, who believes himself unjustly condemn'd by his own Bishop, can appeal to the Metropolitan of the Province, who is oblig'd to examine the Affair, and to repair the Injustice, if any has been done. At present, Metropolitan seems to be but a bare Title, and his Jurisdiction confin'd to the Consecration of his Suffragans Bishops; since there have been so many Privileges and Immunities granted to Bishopricks by the Court of Rome, to free them from the Jurisdiction of the Metropolitan, that almost all Cases, of any Consequence, are evok'd before the Pope, who thereby has much extended his Jurisdiction, even so far, as a Metropolitan can't convoke the Synod of his Province, without the Consent of the holy See. The Province under the Jurisdiction of the Archbishop is call'd *Archbishoprick*. The Kings of France, when they want some new Archbishoprick, form the Province, by appointing the Suffragans, and desire the Pope to erect it into an Archbishoprick; who sends the new Archbishop, for Mark of his Jurisdiction, the PALLIUM, which is a pontifical Ornament, wore by Popes, Primates, and Metropolitans, over their other Garments, in Form of a Band, or Fillet, three Fingers broad, and encompasses the Shoulders; whence, by some Authors, it is call'd *Super Humerali*. It has Pendants, or Strings, about a Palm long, both before and behind, with little Lamine of Lead rounded at the Extremes, and cover'd with black Silk, with four red Crosses.

The PALLIUM is made of white Wool, shorn from off two Lambs, which the Nuns of St. Agnes offer every Year, on the Day of her Feast, on the singing of the

the Mass, *Agnus Dei*. The Lamb is receiv'd by two Canons of St. *John de Lateran*, who deliver them into the Hands of the apostolical Subdeacons, to whom belongs the Feeding, and Sheering of them in Season, and who, alone, have the Right of making these *Palliums*, which, when made, they lay over the Bodies of St. *Peter* and St. *Paul*, on the grand Altar of their Church, making Prayers over them all Night, according to the Form prescrib'd for that Purpose in the *Roman* Ceremonial. Some, with *Eusebius*, will have the *Pallium* to have been introduc'd by Pope *Linus*, adding, that as the Ephod was the Mark of the pontifical Authority in the *Jewish* Synagogue, so is the *Pallium* in the *Christian* Church. Others have observ'd, that there is no mention made thereof before the Year 336. And others will have it to have been first granted, by *Constantine the Great*, to Pope *Sylvester*, from whence it passed to the other Patriarchs and *Archbishops*.

The Pope pretends to the sole Right of conferring the *Pallium*, though some Patriarchs have granted it to their Suffragans, having first receiv'd it themselves from the *Roman* See. Antiently, the Pope used to send the *Pallium* to certain of his diocesan Bishops, on whom he laid a good Part of his Authority, and who were a Kind of Collaterals to him, as the *Patricii* were to the Emperors. The first who receiv'd it in *France*, was *Vigilius*, *Archbishop* of *Arles*, in order, as *Pasquier* observes, to give him the Precedency over the other Bishops. Antiently, they went to *Rome* to seek the *Pallium* in Person, afterwards it was sent by the Pope's Legates; at last the Custom was introduc'd to send Persons express to demand it, with this Form, *Instante, instantius, instantissime*.

By the Canon Laws, a *Metropolitan*, till he has receiv'd the *Pallium*, can't consecrate Bishops, or Churches, may not be call'd *Archbishop*, &c. upon a Translation he must have the *Pallium* a-fresh, and till then can't hold a Synod, nor perform any of his *archiepiscopal* Functions. The *Pallium* was antiently interr'd with the Person. The Use of the *Pallium* is restrain'd to certain Seasons and Occasions; none but the Pope has the Right of wearing it always, and in all Places. He sends it, sometimes, to Bishops, of his own Accord; and has, sometimes, given the Right thereof to particular Churches. Among the *Greeks*, all the Bishops wear the *Pallium*.

Solomon, King of *Britanny*, wrote, in 869, to Pope *Adrian* II, to ask the *Pallium* in Favour of *Festian*, Bishop of *Dol*, and accompanied his Letter with several Presents, and, among the rest, a golden Statue, of *Adrian's* Height. The Pope sent him, in Return, one Arm of Pope *Leo* III, and, in some Authors Opinion, granted, at the same Time, the *Pallium* to the Bishop of *Dol*. But it is pretended, that in the Synod of *Xaintes*, under Pope *Gregory* VII, it was prov'd, that the Place of the Answer of Pope *Adrian* to King *Solomon*, where the *Pallium* is mention'd, was falsify'd by a Clerk of the Bishop of *Dol*. The Truth is, that we have no *Archbishoprick* in *Britanny*, and that our nine Bishops are Suffragans of the *Archbishop* of *Tours*.

The nineteenth Canon of the eighth General Council regulates the Visitations of *Metropolitans*, and forbids them to leave their Churches, to visit those of their Suffragans, to abuse their Authority, and to consume the Revenues of those Churches, which must be spent to feed the Poor: For, says he, if each Bishop is oblig'd to use, with great Frugality, the Revenues of his own Church, without sacrificing them to his Cupidity or Avarice; of what Impiety must those be guilty, who undertake to oppress the Churches committed to others?

A Bishop, is a Person consecrated for the spiritual Government, or Direction of a Diocese, as an *Archbishop* for that of a Province. He differs from an *Archbishop* in this, that an *Archbishop* with Bishops consecrate a Bishop, as a Bishop with Priests ordain a Priest; that the *Archbishop* visits a Province, as the Bishop a Diocese; that the *Archbishop* convokes a

provincial Synod, as the Bishop a diocesan one; and that the *Archbishop* has canonical Authority over all the Bishops of his Province, as the Bishop over the Priests in his Diocese.

In a Letter written by Pope *Celestinus* IV, in 1288, to the Bishops of the *Gallican* Church, he reprimands those who had ordain'd Bishops some Laicks who had not pass'd through the other ecclesiastical Degrees; in which, says he, he had violated the ecclesiastical Discipline establish'd by the Canons, which had decreed, that the Clerks should arrive, by Degrees, to Priesthood, and to Episcopacy. For if it be reasonable to be a Disciple before any Body can be a Doctor, and Soldier before he can be a Captain; how can a Person be made Priest, or Bishop, before he has learn'd, in the inferior Ministry, the Functions of the superior?

The eighth Canon of the first Council of *Paris*, held in 557, order'd, that Bishops should be elected by the Clergy, with the Consent of the People; and that if any Body had the Temerity to usurp the Episcopacy, by a royal Authority, he should not be receiv'd by the *comprovincial* Bishops. But this, and several other Decrees, made from Time to Time, in the *Catholic* Church, in Support of the antient Discipline, with Regard to the Election of Bishops, have been disregarded for several Centuries past; and Princes have nominated to Bishopricks whom they please, without the Consent of the Clergy; and but too often utter Strangers to the Church they are to govern; the Favour of the Prince, or of his Ministers, or chief Favourites, or some other human Views, have been, almost Time out of Mind, and are still, the best Qualifications for a Bishoprick, often to the Exclusion of the Qualities required by the Canons.

The Asserters of the Privileges and Liberties of the *Gallican* Church, say, that the Provision to Prelacy, and other ecclesiastical Dignities, has been made, at all Times, in Forms so different, and so contrary to one another, that it is very difficult to say which is the most legitimate. They pretend, that though it can't be denied that Elections were in Use at the Time of the Apostles; it can also be shew'd, that even then there was another Way, besides that of Election. That the Pope has pretended, that that Right was peculiar to him, that Princes have claim'd the same Right; that sometimes the Bishops of the Province alone have provided to the Bishopricks, and at another the Clergy and the People have elected their Pastors; sometimes the Prince, the Clergy and the People, with common Suffrages; sometimes the Clergy without the People; and sometimes the Canons, alone, without the Clergy.

This Variety shews plainly, say they, that it was never believ'd that those Elections were of divine Institution; and that it was always licit to the secular Powers to behave in it, as it suited best their Interest; and that with much more Reason, because the Persons thus promoted were judg'd capable to possess all Kinds of temporal Estates; not Cities only, but likewise whole Provinces.

The Popes, strengthen'd by their great Power, have always claim'd that Right, as belonging to them, under Pretence that they were antiently the sole Bishops of *Christendom*; and though they have distributed Part of their Dignity to particular Bishops, it was not with a Design of diminishing their own, or giving up their Right. But the *French* hold quite another Maxim, especially *Glaber*, who in his History, Lib. 2. c. 4. speaks thus: *Licet Pontifex Romanus, says he, Ecclesie ob dignitatem Apostolicæ sedis ceteris in orbe constitutis reverentior habeatur, non tamen ei licet transgredi, in aliquo, Canonici moderaminis tenore: Sicut enim unusquisque orthodoxe Ecclesie Pontifex ac sponsus propriæ sedis, uniformiter gerit speciem Salvatoris ita generaliter nulli convenit quid piam patrare in alterius Diocesi. i. e.* Though, says he, the *Roman* Pontiff, because of the Dignity of the apostolical See, is respected above all the other Bishops, establish'd in the

other Parts of the World; he ought not, notwithstanding, to transgress the Regulations of a canonical Government: For as every *Bishop* of the orthodox Church represents the Saviour, in his own See; therefore none is to pretend to any Jurisdiction in the Diocese of another *Bishop*.

The Opinion that secular Princes have a Right of Nomination to the *Bishopricks* of their Dominions, is supported by a Chapter found in the Body of the Canon Law, which begins *Adrianus*; whereby Pope *Adrian I.* in a Council held at *Rome*, granted to *Charlemagne*, Emperor and King of *France*, and to his Successors, the Power to order the Election of the Pope, and to confirm it; and, besides, that the Archbishops and *Bishops* of the other Provinces should be oblig'd to take their Investiture from his Hands, before they could be consecrated. Cardinal *Baronius*, *Tom. 9. Annal. 774.* has done all he could to shew that the History of that Chapter is false, and invented by *Sigebert*, in Favour of the Emperors of his Time, who, at that Time, had several very great Differences with the Popes, for the Investitures. But the *Germans*, on their Side, have answer'd all he has said on that Subject, to prove the Truth of the History of that Chapter.

There are some Doctors who go farther than this, and pretend, that the Right of Nomination to *Bishopricks* belongs to Kings, and other sovereign Princes, not by any Concession of the holy See, but as a regal Right, which therefore proceeds from the natural one. It is the Sentiment of *Ferdinand Vasquez, Lib. 2. Controvers. Illust. c. 15.* *Nam ad perfectam hujus rei cognitionem, says he, præfari oportet, non esse solum vel simplex jus Patronatus, id quod habent Hispaniarum Reges in talium beneficiorum collatione seu nominatione, neque ex solâ juris Canonici concessione, sed potissimum ex ipso jure regali, & sic ex jure naturali.* i. e. For, says he, to understand very well this Affair, it must be said, that the Right which the Kings of *Spain* have of the Collation and Nomination to those Benefices, is not a simple Right of Patronage, or a simple Concession of the Canon Law, but rather a regal Right, and a natural Right. *Francis de Piza*, in his History of *Toledo, lib. 4. c. 28.* writes, that the last who was elected Archbishop of *Toledo*, was in the Year 1445; that those who have been since Archbishops of that See, have been nam'd, by the Kings of *Spain*, without the Consent of the Chapters. And quotes, afterwards, the Ordinance of King *Philip II.* of the Year 1565, which contains, *El Emperador Don Carlos, y Regna Donna Juana, en Segovia, Anno 1532. petit. 56. Y en Valladolid. An. 1548. petit. 92, 93. Por derecho et antigua costumbre y Justos Titulos y Concesiones Apostolicas somos Patron de Todas las yglesias Cathedralres deitos Reynos, y nos perienere la presentation de los Arcobispados y obispados, y prelacias y abbas Consistoriales deitos Reynos, a unque vague a in Corte di Roma.* i. e. By which we declare, that by an ancient Custom, by just Titles, and apostolical Concessions, we are Patrons of all the Cathedral Churches of this Realm; and that the Presentation to all Archbishops, Bishops, Prelacies, and consistorial Abbies of these Realms, belongs to us; and that none of them is vacant in the Court of *Rome*.

We have several very considerable Examples in the History of *England*, that the same Right of Presentation to *Bishopricks*, and other Prelacies, has been asserted, in that Kingdom, and defended against the Pretensions of the Court of *Rome*, especially in that famous Letter of *Edward III.* to the Pope, in the Year 1343, where we find these Words; *Permittentes ut Patroni Patronatus sui solatium non amittant, Ecclesieque Cathedralres, & alie dicti Regni liberas Electiones, & earum effectum habeant, quas quidem Ecclesias dicti Progenitores nostri, dudum singulis vacationibus earundem personis idoneis jure suo Regio conferebant; & post modum ad rogatum & instantiam dictæ sedis sub certis modis & conditionibus concesserunt, quod electiones fierent in dictis Ecclesiis per Capitula earundem, quæ Concessio fuit per sedem Apostolicam, ex certâ Scientiâ*

confirmata. i. e. Permitting that the Presentators to Benefices should not lose their Right of Patronage; and that the Cathedral Churches; and others of this Kingdom; should enjoy their free Elections; and the Effect thereof; which Churches our Predecessors us'd formerly to confer, (of their own proper royal Right) when they were vacant, to those they judg'd worthy of them; but afterwards, at the Solicitations and Instances of those vacant Churches, they have granted, under certain Restrictions, and Conditions; that those Elections should be made by the Chapters of those Churches; which Concession, we know, for certain; has been confirm'd by the apostolical See.

There is not the least Trace left, in the *Gallican* Church, of any Election, not even in the Form mention'd in the Letter of *Edward III.*; for the King has always a List kept, commonly by his Father Confessor, of all the Persons he designs to name to *Bishopricks*, when there are any vacant; and fills the Vacancies with those Persons, without the Consent; Approbation, and often without the Knowledge of the Church they are promoted to.

Damianus a Goes, De Mor. Æthiop. p. 1311, informs us, that even *Prestor John*, Emperor of *Æthiopia*, in *Africa*, gave Names to the *Bishopricks*, and other Benefices of his Country. *Patriarchæ, says he, Officium est Sacros Ordines dare; ceterum nullum Episcopatum aut Ecclesiæ Beneficia in ullos confert. Id solum ad pretiosum Joannem spectat qui omnia pro arbitrio suo dispensat.* i. e. The Office of the Patriarch is to confer the sacred Orders; but he never confers a *Bishoprick*, or any other Benefices of the Church; that pertains only to the precious *John*, who disposes of all Things at his Will and Pleasure.

The Form of consecrating *Bishops* is different in different Churches. In the *Greek* Church the *Bishop* elect being by the assistant *Bishops* presented for Consecration, and the Instrument of Election put in his Hand; after several Prayers, (the first call'd *Diaconium*) the *Bishop* elect demanding Consecration, makes Profession of his Faith; after which, he receives a Benediction. He is then interrogated as to his Belief of the Trinity; to which he answers by a long Profession of Faith, and receives a second Benediction. Lastly, he is ask'd what he thinks of the Incarnation; to which he answers in a third Profession of Faith; which is follow'd by a third Benediction: After which, the Consecrator gives him the pastoral Staff. Then he is led up to the Altar, where, after certain Prayers, and three Crosses on his Head, he receives the Pallium; if he be an Archbishop, or Patriarch, he then receives the Kiss of Peace, of his Consecrator and two Assistants, and sitting down, reads, prays, and gives the Communion to his Consecrator and others.

In the *Roman* Church, the *Bishop* elect being presented by the elder Assistant to the Consecrator, takes the Oath; he is then examin'd as to his Faith, and after several Prayers, the New Testament is drawn open over his Head, and he receives the Chrism, or Unction, on his Head; the pastoral Staff, Ring, and Gospel, are then given him, and after Communion the Mitre put on his Head; each Ceremony being accompanied with proper Prayers, &c. The Process ends with *Te Deum*.

In *England*, the King being certify'd of the Death of a *Bishop*, by the Dean and Chapter, and his Leave requested to elect another, the *Conge d'Elire* is sent to them, nominating the Person he would have chosen. The Election is to be twenty Days after the *Conge d'Elire*, and the Chapter, in case of refusing the Person nam'd by the King, incurs a *Premunire*. After Election, and its being accepted of by the *Bishop*, the King grants a Mandate, under the Great Seal, for Confirmation; which the Archbishop consigns to his Vicar-General, consisting mostly in a solemn Citation of such as have any Objections to the *Bishop* elect, a Declaration of their Contumacy in not appearing, and an Administration of the Oath of Supremacy and canonical Obedience. Sentence being read by the Vicar-General,

General, the Confirmation concludes with a Treat, (and in the *Roman Church* by a Retreat into a Seminary or other Place of Devotion, to prepare himself for his Consecration). Then follows the Consecration by the *Archbishop* and two assistant *Bishops*: The Ceremony of which; is most the same as in the *Roman Church*, save that, having put on the episcopal Robes, the Archbishop and Bishops lay their Hands on the the new Prelate's Head, and consecrate him with a certain Form of Words. After the Communion they go to a Banquet.

All these religious Ceremonies used in the Consecration of a *Bishop*, in all Churches, should put them in Mind, that they are not invested with that sacred Dignity, with no other View than to please their Ambition, or to advance their private Interest; that the Pastoral Staff is not put in their Hands to help them to walk with more Ease, through the intricate and difficult Paths of a Court; nor the Mitre put on their Head to appear there with more Splendor. That Pastoral Staff, which is at present but a mere Mark of Distinction, was in the Primitive Church, the sole Conveniency used by the good *Bishops* of those Days, on which they leaned upon, in their Visitation through their Diocese, instead of those costly Vehicles, and that numerous and chargeable Retinue of Men and Horses, our Bishops are carried in, and attended with, when they judge proper to discharge that most considerable Duty of their pastoral Sollicitude, to the Oppression of a poor Curate, often obliged to spend his whole yearly Income, in one Meal, to treat his *Bishop* at his Visitation. That worldly Pomp and Magnificence, Episcopacy is attended with at present is condemned by all the Councils, and renders them despicable to those who have a true Notion of their Dignity, who see with a very just Scorn those, appointed by the divine Providence, (as *Bishops* are pleased themselves to say) for the Conduct of a whole Diocese, always absent from that Diocese, and oftner at Court than in the Sanctuary; where, according to the 31st Canon of the Council of *Orleans*, held in 511, they should always be seen (except when they are sick) at least every Sunday.

The Principal Church of a Diocese or *Bishoprick* is called CATHEDRAL, from the Greek, *Καθεδρα*, a Chair, of *καθρομαι*, *sedeo*, I sit. The Denomination *Cathedral* seems to have taken its Rise from the Manner of sitting in ancient Churches, or Assemblies of primitive Christians: In these, the Council, *i. e.* the Elders and Priests was called *Presbyterium*; at their Head was the Bishop, who held the Place of Chairman, *Cathedralis* or *Cathedraticus*; and the Presbyters who sat on either Side, were also called by the ancient Fathers, *Assessores Episcoporum*.

Those Assemblies are at present called *Chapter*, and that Chapter is composed of a Dean, and several Canons or Prebendaries. Besides that of the Dean, which is the first Dignity of the *Chapter*, there are several others, as those of the Treasurer, Chantor and Theologal.

The Dean of a *Chapter* has no other Jurisdiction than that of assembling the *Chapter* whenever he judges proper for the good of the Community, otherwise he is but *primus inter Pares*.

The TREASURER has under his Care, or the Superintendency of the Treasure of the *Cathedral*, consisting of the Vessels, Ornaments, &c. for the divine Service, and of the Casual, *i. e.* of the Money received for Obits, Masses, Foundations, &c. to have it distributed to the Prebendaries, and to pay what is called the *Bas Chaur*, or those Journeymen hired by the *Chapter* to pray to God in their stead.

The CHANTOR is the Praeceptor, or Master of the Choir; he bears for Mark of his Office, at solemn Festivals, while in the Choir, a long Staff, about five Foot long, and four Inches Diameter, covered all over with *Lamine* of Silver, with which he walks gravely up and down the Choir during the Divine Service, that it may be performed with due Decency, and without Confusion. He gives Tune to the rest at the Beginning of Psalms and Anthems, and can, by striking

with his Staff, against the Pavement, stop the Service, if he finds that it is not done as it should be. The Antients called the Chantor, *primicerius Cantorum*. To him formerly belonged the Direction of the Deacons, and other inferior Ministers.

The THEOLOGAL is a Prebendary, appointed to make Lectures of *Theology* twice a Week, to the other Prebendaries, to propose and resolve Cases of Conscience, and to preach every Sunday in the Year; but he seldom performs any of those Functions.

The CANONS or PREBENDARIES are those, who, in the *Cathedral* possess a *Prebend* or Revenue allotted for the Performance of divine Service. *Canons* are of no great Antiquity: *Paschier* observes, that the Name *Canon* was not known before *Charlemagne*; but however there were *Canons* then, for in the 9th Chapter of the Council assembled at *Mayence* in 813, by his Orders; it is commanded to the canonical Clerks, *i. e.* to the *Canons*, to live canonically, *i. e.* to observe the Doctrine of the Scripture, and of the Fathers, and to do nothing without their *Bishop's* Leave; to sleep and eat in the same House; and to those who lived in separate Houses, to come every Morning to the Lecture to hear what would be ordered.

Originally *Canons* were only Priests, or inferior Ecclesiasticks, who lived in Community; residing by the *Cathedral Church*, to assist the *Bishop*, depending entirely on his Will, supported by the Revenues of the Bishoprick, and living in the same House as his Domesticks or Counsellors, &c. They even inherited his Moveables, 'till the Year 816, when this was prohibited by the Council of *Aix la Chapelle*. By Degrees these Communities of Priests, shaking off their Dependence, formed separate Bodies, whereof the *Bishops* however were still Head. In the 10th Century there were Communities or Congregations of the same Kind established even in Cities where there was no *Bishop*: These were called *Collegiates*, in Regard they used the Terms *Congregation* and *College* indifferently: The Name *Chapter*, now given to these Bodies, being much more modern. Under the second Race of the Kings of *France*, the canonical or collegial Life had spread itself all over the Country; and each *Cathedral* had its *Chapter* distinct from the Rest of the Clergy; but they were not yet destined to a Life so easy as now-a-Days.

They had the Name *Canon* from the Greek, *Κανον*, which signifies three different Things, a Rule, a Pension, or fixed Revenue to live on, and a Catalogue or *Matricula*. Hence, some say, they were called *Canons*, by Reason of the Pension or Prebend, (whence they are also sometimes denominated *Sportulantes Fratres*) others hold they were called *Canons*, because obliged to live according to the canonical Rules and Institutions, which were given them; and others as *M. de Marca*, because their Name was inserted in the *Matricula*, or Catalogue of the *Cathedral*.

In Time the *Canons* freed themselves from their Rules, the Observance relaxed, and at length they ceased to live in Community, yet still formed Bodies, pretending to other Functions besides the Celebration of the common Office in the Church, yet assuming the Rights of the Rest of the Clergy, making themselves a necessary Council of the *Bishop*, taking upon them the Administration of a See during a Vacancy, and the Election of a *Bishop* to supply it. There are even some *Chapters* exempt from the Jurisdiction of the *Bishop*, and owning no Head but their Dean. After the Example of *Cathedral Chapters*, collegiate ones also continued to form Bodies, after they had abandoned living in Community; which Communities have been in several Ages and Places composed of Monks; for after the monastick Life grew into Request, many *Bishops* chose Monks rather than Seculars for their Attendants.

There are *Canons* of various Kinds, *viz.* Cardinal *Canons*, *Domicillary Canons*, *Execlative Canons*, *Foreign Canons*, and *Lay* or *Honorary Canons*.

CARDINAL CANONS are those attached, and, as the *Latins* call it, *Incardinati* to a Church, as a Priest is to a Parish. *Domicillary Canons* were young *Canons*, who

who, not being in Orders, had no Right in any particular *Chapters*. *Expectative Canons* were such, as without having any Revenue or Prebend, had the Titles and Dignities of *Canons*, a Voice in the *Chapter*, and a Place in the Choir, 'till such a Time as a Prebend should fall. *Foreign Canons* were such as did not officiate in the *Canonries* to which they belonged. To these were opposed *Manfionary Canons*, or *Canons Residentiary*. In a manuscript Ordinary, at *Rouen*, mention is made of *Canons* of thirteen Marks, which, perhaps, was the Revenue of their *Canonicate*.

In the *Cathedral Church* of our Lady at *Paris*, there are *Canons* in the sacred Orders, and *Canons in minoribus*, or minor Orders. All the *Canons* of the *Cathedral* of *Lyons* stile themselves *Canons* and Counts of *Lyons*. In the Churches at *London* were *minor Canons* or *little Canons*, who officiated for the great ones. At *Lucca* there are *Mitred Canons*; there were also *Canons of Poverty*; and *Canons ad Succurrendum*, who were made *Canons* at the Point of Death, to partake of the Prayers of the *Chapter*. *Lay* or *Honorary Canons*, are such among the Laity, as have been admitted, out of Honour and Respect, into some *Chapters* of *Canons*. Such are the Counts of *Anjou* in the Church of *St. Martin De Tours*, the Kings of *France*, of *St. Hilary* in *Poitiers*, &c. the Emperor of *St. Peters*, &c.

Besides the *Cathedral*, there are very few *Bishopricks* where there is not one or two *Collegiate Churches*, which are those, which, though they have no *Bishop's See*, yet have the antient Retinue of the *Bishops*, the *Canons* and *Prebends*. Of these *Collegiate Churches* there are two Kinds; some of Royal Foundation, others of Ecclesiastical Foundation: Each of them in Matters of divine Service are regulated in the same Manner as the *Cathedrals*. There are even some *Collegiate Churches* which have the episcopal Rights. Some of these Churches were antiently *Abbeys*, which in Time were secularised.

The Church of *St. Peter's Westminster* was antiently a *Cathedral*, but the Revenues of the Monastery being, by Act of Parliament, to *Elizabeth*, vested in the Dean and *Chapter*, it commenced a *Collegiate Church*. In several Causes the stiling it *Cathedral* instead of *Collegiate Church* of *Westminster*, has occasioned Errors in the Pleadings. *Rippon*, *Windfor*, &c. are also *Collegiate Churches*, governed by *Deans* and *Chapters*.

In most *Cathedral* and *Collegiate Churches*, the *Canons* hire inferior Priests or other Ecclesiasticks, to discharge the most burthenfome of their Functions, particularly that of praying; according to the following malicious but very just Observation of *Boileau*, speaking of the *Canons* of the *St. Chapelle* at *Paris*.

Ces Chanoines Vermeils & Brillants de Sante
Sengraissoient d'une Longue & Sainte Oisiveté,
Sans sortir de leurs Liets plus doux que leurs Hermines,
Ces pieux Faineans faisoient chanter Matines,
Veilloient a bien diner, & laissoient, en leur Lieu,
A des Chantres Gages le Soins de Louer Dieu.

LUTRIN.

Note, That the *Bishops* of *England* are all Barons and Peers. Barons in a two-fold Manner, viz. Feudal in Regard of Lands and Baronies annexed to their *Bishopricks*; and by Writ, as being summoned by Writ to Parliament. They have the Precedence of all other Barons, and sit in the upper House, both as Barons and *Bishops*. They have two special Privileges next to Regal: The first, that in their Courts they sit and pass Sentence of themselves, and by their own Authority: The *Bishop's Court* being not like other Courts; but Writs are sent out in their own Name, *Teste the Bishops*, not in the King's Name, as is done in the King's Courts. The second, that, like the King, they can depute their Authority to another, as their Suffragan, Chancellor, Commissary, &c. They have also this

Advantage over Lay-Lords, that in whatever Christian Country they come, (except in the *Roman Catholic Countries*) their episcopal Dignity is acknowledged. They have their Vote in the Trial and Arraignment of a Peer, but ere Sentence of Death, &c. they withdraw and vote by Proxy; which, in my Opinion, is but a mere Grimace, for though they be not present, at the pronouncing of the Sentence, if they find guilty by Proxy, or otherwise, they have equally condemned him to die, as those who are present when the Sentence is pronounced. They have several Immunities, as from Arrests, Outlawries, Distress, &c. Liberty to hunt in the King's Forests, &c. to have certain Tuns of Wine Duty-free, &c. Their Persons may not be seized, as Lay-Peers may, upon Contempt, but their Temporalities alone. They may qualify as many Chaplains as a Duke, viz. six. By Law the Crime of *Episcopicide*, which a *Clergyman* commits by killing his *Bishop*, is equivalent to Parricide, viz. Petty-Treason.

BISHOPRICKS are divided into several *Parishes*, more or less in Number, according to the Extent of the Diocese; and the Ecclesiastick committed to the Conduct of each Parish, is called *Curate* or *Rector*. Such Ecclesiastick is most commonly called in *England* *Parson*, either by Way of Eminence, as some say, because the Revenues of a Church are destined to maintain *magnam Personam*; or as some will have it, because he is bound by Virtue of his Office, in *Propria Persona servire Deo*, (though he does it oftener by his *Curate*) whence *Impersonare*, in old Charters, is to put in Possession of a Parsonage &c. or as others, because the original *Parsons*, *Personæ*, were in Reality only Dignitaries, and possessed Benefices, which gave them some personal Pre-eminences in the Church or *Chapter*, but no Power. Or lastly, as others, because the *Parson* for his Time represents his Church, and sustain the Person thereof, as well in suing as in being sued in any Action touching the same.

Some distinguish between a *Rector* and *Parson*: The *Rector*, say they, is where the Vicarage is endowed; and the *Parson*, *Persona*, where the Personage is without a Vicarage: But the Distinction seems new and subtle: *Bracton* apparently uses *Rector* and *Parson* as synonymous.

Formerly, he who had a Church by Institution and Induction only for his own Life, was call'd *Parson mortal*; but any collegiate, or conventual Body, to whom the Church was for ever appropriated, was called *Parson immortal*.

Some, again, make a Distinction between *Parson* simply, and *Parson impersonæ*, impersonated. *Parson impersonæ* is the Rector or Incumbent in Possession of a Parish Church, whether presentative or inappropriate, and with whom the Church is full. *Parson* simply, they contend, is properly the Patron, or he that has the Right of Presentation; call'd *Parson*, by reason, before the *Lateran Council*, he had a Right to the Tithes, in Respect of his Liberality in erecting or endowing the Church, *quasi sustineret Personam Ecclesie*. It is certain, in the Registers of Writs, *Persona impersonata* is us'd for the Rector of a Benefice presentative; and, in *Dyer*, a Dean and Chapter are said to be *Parsons impersonæ* of a Benefice appropriated to them. So that *Personata* seems only chang'd into *impersonata*, in Respect of the Possession of the Benefice.

The PARSONAGE, or RECTORY, is ordinarily endow'd with a House, Glebe, and Tithe, for the Maintenance of the *Parson*, or Rector.

A RECTOR, or PARSON, is presented to his *Parsonage*, or *Rectory*, either by the King, or by the Bishop, or by any other who has Right of Patronage to that Church he is presented to.

Of Patronages, some are lay, others ecclesiastical. Lay Patronage, is a Right attach'd to the Person, either as Founder, or as Heir of the Founder, or as Possessor of a Fee to which the Patronage is annex'd.

Lay

Lay Patronage, again, is *real*, or *personal*. *Real Patronage* is that attach'd to the Glebe, or to certain Lands, and Hereditaments. *Personal Patronage* is that belonging immediately to the Founder of the Church, and transmittible to his Children and Family, without being annex'd to any Fee. *Personal Patronage* can't be alienated or sold, *real* may, together with the Glebe to which it is annex'd. There must ever be some Body or Matter to fix it to, in order to its being transferr'd to another.

Ecclesiastical Patronage, is that which a Person is entitled to by Virtue of some Benefice which he holds. If an Ecclesiastick has a Right of *Patronage* on his own Account, independent of his ecclesiastical Capacity, this is still *Lay Patronage*.

The Origin of the Right of *Patronage* we find in the tenth Canon of the Council of Orange; where it is express'd, that a Founder may present to the Diocesan the Clerks he thinks proper for his Church. By a Law of *Justinian* it is ordain'd, that the Founders of Churches may not put Clerks in them, on their own Authority, but only present them to the Bishop. Some Canonists look on the Right of *Patronage* as a Kind of ecclesiastick Servitude. The Right of *Patronage* sleeps, but is not lost, while a Person is out of the Communion of the Church.

In *England*, the Presentation must be tendered to the Bishop within an hundred and eighty-two Days after the Living is vacant, else it lapses to the Bishop; and if the Bishop does not collate in Half a Year more, it lapses to the Archbishop; and from him, in a like Time, to the King, who may stay as long as he pleases: For *Nullum tempus occurrit Regi*. By some Customs a Lay Patron has only four Months Time to make his Presentation in; and if he has presented a Person incapable, he may vary it, and make a new Presentation within the four Months.

In *France*, the *ecclesiastical Patronage*, especially in the Possession of Abbies, or other religious Houses, is very oppressive to the inferior Clergy, for the Abbies, or other religious Houses, reserv'd for themselves the whole Revenue of the Parishes in their Presentation, and give to the Incumbent but a very small Pension, scarce sufficient, with the Casual of his Church, to maintain him; and those Gentlemen appropriate to their own Use all the great Tithes, viz. those on Corn, Hay, and Wood; leaving, sometimes, by a Kind of Condescension, the small ones, as those of Wool, Milk, Cheese, Lambs, Ferrets, &c. to the *Rector*; who, in Fact, and according to the Intention of the Founders, as well as of the Church, should have all Sorts of Tithes, both great and small.

Those TITHES are the tenth Part of all Profits, or Fruits, both predial, personal, and mixt; allotted to the Clergy for their Maintenance.

There are three Kinds of Tithes, viz. *personal*, *predial*, and *mixt*. *Personal Tithes* are those due, or accruing from the Profits of Labour, Art, Trade, Navigation, and Industry of Man. *Predial Tithes*, those which arise from the Fruits of the Ground; as Corn, Hay, Underwood, Flax, Hemp, &c. or from the Fruits of Trees; as Apples, Pears, Plumbs, Cherries; or from the Produce of the Garden. *Predial Tithes*, are either *great*, or *small*. *Great Tithes* are those of Corn, Hay, and Wood. *Small Tithes* are those of Flax, Hemp, &c. which are *predial*; and those of Wool, Milk, Cheese, Ferrets, &c. which are *mixt*, because arising from Beasts, and other Animals fed with the Fruits of the Earth.

The Tithes of Ground newly broke up, and cultivated, are call'd *Decime novales*, and always belong to the Vicar, in *England*, as well as the small Tithes. The Novelty is confin'd to forty Years before the Demand.

The Clergy pretends that the Custom of paying Tithes is very antient, since *Abraham* gave *Melchisedech* the Tenth of all the Spoils of the four Kings he had defeated, *Gen. xiv. 20.* and *Jacob* made a Vow at *Bethel*, to give the Tenth of all the Riches he should gather, in that Journey, to God, *Gen. xxviii. 22.* But

these Passages do not plead much in Favour of Tithes, as they have been paid for several Centuries past to the *Christian Clergy*; for *Abraham* gave only to *Melchisedech* the Tenth of the Spoils, not of his Revenue, and this but once, not annually; and besides, not as a Maintenance, which *Melchisedech* wanted not, but as a Homage: For it can't be imagin'd, that if he had not given that Tenth, *Melchisedech* could have claim'd it as his Right, and, in Case of Refusal, sued *Abraham* for it. And as to *Jacob*, what he did was the Effect of a Vow, voluntarily made, to offer the Tenth of all he should possess; not to any Priest but to God himself, upon an Altar.

Tithes were first legally enjoin'd by *Moses*, *Levit. xxvii. 30.* *Numb. xviii. 21.* *Deut. xiv. 21.* That Legislator oblig'd the *Israelites* to several Kinds of Tithes; as, 1. The first Tithe, which was that of all the Fruits given to the *Levites*. 2. The second Tithe was a tenth Part of the nine remaining after Payment of the first Tithe. This Tithe was set a-part in each Family, and the Master of the Family was oblig'd to carry it to *Jerusalem*, and to spend it there; or, in Case he could not, he was to redeem it, or convert it into Money; in which Case, he was to add a Fifth to it, and carry the Money to *Jerusalem*. The Rabbins say, that if he did not redeem it himself, that is, if he did not substitute his own Money in Lieu of it, but sold it to another, he was only requir'd to carry the bare Price to *Jerusalem*, without any Addition. 3. The Tithe of the Tithe was the tenth Part of all the Tithes that had been given to the *Levites* by the People. For the *Levites*, after they had got all their Tithes of the People, divided it into ten Parts, and in their Turn gave a Tithe to the Priests. This Tithe the Rabbins call'd *Oblation of the Tithes*; *Tithe of Tithe*, or *Tithes of Things sanctify'd*: And this the *Levites* were oblig'd to carry to the Temple; the rest was reserv'd for their own Subsistence. 4. The Tithe of the third Year, was another Kind of Tithe, not much different from the second Tithe, excepting that it was less troublesome, by reason they were not oblig'd to carry it to *Jerusalem*. Every seventh Year God appointed that the Ground should lie and rest, nor should the Owners even gather the Fruits which it produc'd spontaneously: That Year, therefore, they paid no Tithe, but only the six preceding ones; now every Third of these six Years, i. e. on the third, and the sixth, they rais'd as usually the first Tithe, and after that a second; but this second they did not carry to *Jerusalem*, either in Kind, or in Money, but kept it by them to be spent by the *Levites*, the Strangers, the Fatherless, and the Widows of the Place, *Deut. xiv. 28, 29.* This was also call'd the Tithe of the Poor, and the third Tithe; and these third Years it was paid on, were call'd the Tithe Years. All these Tithes amounted to above one Sixth of the Revenue of each Person: For if, for Instance, a Master of a Family reap'd 6000 Measures of Wheat, and 100 were first taken away for the First-fruits of Oblation, he had only 5900 left; for these 5900, taking away the first Tithe, 590, there remain'd 5310, the Tenth whereof is 531; which being taken for the second Tithe, leaves 4779 for the Proprietor; who, consequently, has given 1121, viz. 121 more than a Sixth of the whole.

Of the 590, which the *Levites* receiv'd for their first Tithe, 59 went to the Priests for the Tithe of Tithes; so that there were left 531 for their own Subsistence, and that of their Families.

Though God himself had establish'd the Tithes, under the written Law, it must not be infer'd hence, that *Christ* has likewise establish'd the Tithes, under the Law of Grace, or that we are under the same Obligation to pay the Tithes to our Clergy, the *Israelites* were to pay to the *Levites*; since there is a very great Difference between the *Levites* and our Clergy: For as the *Levites* had no Part in the Division of the Land made between *Jacob's* other Children, it was but very just that something else should be allow'd for their Subsistence; therefore God, by *Moses's* Ministry, establish'd

establish'd the *Tithes* for that Purpose; but the same can't be said of our *Clergy*, who are not depriv'd, as the *Levites* were, by being call'd to the Service of the Altars, of the Possessions given them by their Right of Inheritance, nor of any other Claim or Pretensions to any other Things of that Kind: Therefore there were no *Tithes* establish'd, nor even the least mention made of them, in the first Centuries of the *Christian Church*; and though the Priests of those Days were very poor, and very few of them had any real or personal Estate, there was no Provision made for them, but they depended entirely, for their Subsistence, as the *Mendicant Friars* have done since, on the Alms and Oblations of the most pious, and most charitable among the *Christians*. In After-times, the *Clergy* growing more numerous, and those Alms and Oblations being not judg'd sufficient for their Maintenance; the Laity gave a certain Portion of their Revenues to them, but voluntarily, and not out of any Constraint or Obligation. The first Instances we have of it, were in the fourth and fifth Centuries; this Gift was call'd *Tithe*, not that it was really a tenth Part of their Income, or near so much; but only in Imitation of the *Tithes* of the old Law.

In the following Age, the Prelates, in their Councils, in Concert with the Princes, made an express Law to that Purpose, and oblig'd the Laity to give a full tenth Part of their Revenues, Fruits, &c. to the Ecclesiasticks. This the Church enjoy'd, without Disturbance, for two or three Centuries; but in the eighth Century the *Clergy* got hold of Part of these *Tithes*, either by their own Authority, or by Grants or Donations of the Princes, and appropriated them to their own Use. Some Time afterwards they restor'd them, or apply'd them to the founding of Monasteries or Chapters; and the Church consented, at least tacitly, to this Restitution. In 1179, the third Council of *Lateran*, held under *Alexander III.* commanded the Laymen to restore all the *Tithes*, they yet held, to the Church. In 1215, the fourth Council of *Lateran*, held under *Innocent III.* moderated the Matter a little, and without saying any Thing of the *Tithes* which the Laity already possess'd, forbade them to appropriate or take any more for the future.

Fra. Paolo, in his Treatise of beneficiary Matters, is of Opinion, that the Custom of paying *Tithes* under the new Law, began in *France*; and affirms, that there are no Instances of it before the eighth and ninth Centuries. But he must be mistaken; for in the second Council of *Mascon*, in *Burgundy*, held in 585, compos'd of forty-three Bishops, and where twenty Canons were made for the ecclesiastical Discipline, it is said, that the *Christians* had a long Time kept inviolate that Law of God whereby *Tithe* of all their Fruits was enjoin'd to be given to holy Places, &c. In Effect, *Origen*, *Homil. 11.* on *Numb.* thinks, that the old Law of *Moses*, touching the First-fruits and *Tithes*, both of Cattle, and of the Fruits of the Earth, are not abrogated by the Gospel, but ought to be observ'd on their antient Footing. The sixth Canon of the Council of *Mascon*, orders *Tithes* to be paid to the Ministers of the Church, according to the Law of God, and the immemorial Custom of the *Christians*, and that upon Penalty of Excommunication; which is the first Penalty we find impos'd on such as would not pay *Tithes*. On which Ground it is, that many, among the modern *Clergy*, hold their *Tithes* to be *Jure Divino*; but I hope not the *Protestant Clergy*, who would be asham'd to quote, in Defence of a temporal Interest, a Council, which they reject, in several other Points, as representing the Whore of *Babylon*, who, in their Opinion, had already gone a whoring, long before the Convocation of that Council.

Others, on the contrary, plead, that the Recompence to be given Church Ministers, is differently ordain'd by God, according to the Differences he has put between his two great Dispensations, the Law and the Gospel: Under the Law he gave them *Tithes*, under the Gospel, having left all Things in his Church

to Charity, and *Christian Freedom*, he has given them only what shall be given them freely, and in Charity. That the Law of *Tithes* is in Force under the Gospel, all the *Protestants* (the *Anglican Church* excepted) deny: For though, say they, Hire to the Labourer be of moral and perpetual Right, yet that special Kind of Hire, the Tenth, can be of no Right, or Necessity, but to the special Labour for which God ordain'd it; that special Labour was the *Levitical* and ceremonial Service of the Tabernacle, *Numb. viii. 21, 31.* which was abolish'd: The Right therefore of the special Hire must be abolish'd too. That *Tithes* were ceremonial, continue they, is evident, from their not being given to the *Levites* till they had been first offer'd as a Heave-Offering to the Lord, *Ver. 24, 28.* He, then, who by the Law brings *Tithes* into the Gospel, brings in, likewise, a Sacrifice, and an Altar; without which, *Tithes*, by the Law, were un sanctify'd and polluted, *Ver. 32.* and therefore were never thought of in the first *Christian Times*, till ceremonial Altars, and Oblations, had been brought back. The *Jews* themselves, ever since their Temple was destroy'd, though they have Rabbi's and Teachers of the Law, yet pay no *Tithes*, as having no proper *Levites* to whom, nor Altar whereupon to hallow them: Which argues, that the *Jews* themselves never look'd on *Tithes* as moral, but merely ceremonial. They add, that *Tithes* were not allow'd to the Priests and *Levites* merely for their Labour in the Tabernacle, but in Consideration of this, likewise, that they were not allow'd to have any other Part or Inheritance in the Land, *Ver. 20, 24.* and who, by that Means, for a Tenth lost a Twelfth.

In Effect, for the first 300 Years after *Christ*, no mention is made in the ecclesiastical History of any such Thing as *Tithes*, though in that Time Altars and Oblations had been recall'd. The Churchmen confessedly liv'd all that Time on Free-will Offerings, nor could the Defect of paying *Tithes* be owing to this, that there were wanting civil Magistrates to enjoin it, since *Christians* having Lands, might have given out of them what they pleas'd; and the first *Christian Emperors*, who did all Things by Advice of the Bishops, supply'd what was wanting to the *Clergy*, not out of *Tithes*, which were never propos'd, but out of their imperial Revenues.

The first Authority produc'd, setting aside the apostolical Constitutions, which few of the Patrons of *Tithes* will insist on, is a provincial Synod at *Cullen*, in 356, where *Tithes* are voted to be God's Rent: But before that Time, divers other Ceremonies had got Ground, as Altars, Candles at Noon, &c. and one Ceremony begat another, as it is certain that *Tithes* suppose Altars.

It is alledg'd, that *Tithes* are of early and solemn Force in *England*, having been paid by Statute ever since the *Saxon King Athelstan*, *Anno 928.* To which the opposite Party answers, that *Ranescot*, or Peterpence, had been likewise paid to the Pope by Statute above 200 Years longer, viz. from the Year 725. And that it is to be noted, by the Way, that these ancient *Tithes*, among the Ancestors of the *English*, kept a nearer Analogy to their Original in the *Mosaic Law*; for the Priests had but a third Part, the other two Thirds being appointed for the Poor, and to repair the Churches, as appears from the Canons of *Elbert* and *Elfrick*.

The same Rules are still in Force in the *Roman Catholic Church*, but can't be so strictly observ'd in the *Anglican Church*, where a Parson being not oblig'd to Celibacy, can't conveniently spend Part of his *Tithes* to succour the Poor of his Parish, when Charity must begin at Home; nor in the Reparations of his Church, which is a publick Edifice, while his own House wants always repairing.

But, however, in both Churches Parsons should know that *Tithes* are not given them to keep them in Indolence, and Luxury, or for their Support only, and that of their Families, on no other Conditions than those of wearing a clerical Habit, and the Name

of Curate, Rector, or Parson of such Parish; leaving to a poor Vicar the entire Conduct of the Souls himself is to answer for, and falsely imagining that he has discharg'd all his Obligations, when he takes Care to have Sermons preach'd, the Sacraments administer'd, the Dead bury'd, &c. at the Times appointed by the Canons: But he is grossly mistaken, for his Obligations are far greater, such as can't be discharg'd by Deputation; and of four different Kinds, viz. towards God, towards himself, towards his Neighbour, and towards his Church.

His Obligations towards God, are two: 1. He must endeavour, in all his Functions, to promote his Glory. 2. He must converse often with him, by Prayers.

1. That a Curate is oblig'd to advance God's Glory as his Minister, appears from this Passage of the second Epistle of St. Paul to Timothy, Chap. ii. Ver. 15. *Study to shew thyself approved unto God, a Workman that needeth not to be ashamed, rightly dividing the Word of Truth.*

2. He must often converse with God by Prayers; because being the Mediator between God and Men, he is to expose to him the Wants of his Flock, and learn from him how to behave towards the same Flock, with Respect to their Salvation.

The Obligations of a Parson to himself, are the three following: 1. He must work to his own Perfection and Salvation, while he is endeavouring to procure that of others: For (as Christ himself says, Mat. xvi. 26.) *What is a Man profited, if he shall gain the whole World, and lose his own Soul?* 2. He ought to execute faithfully what he knows to be prescrib'd to him by the Church; lest, by his Omissions, he should scandalize the Ecclesiasticks, whom he has for Assistants, in his pastoral Sollicitude. 3. He must avoid, as much as possible, all that is contrary to the Constitutions, and true Spirit of the Church, especially Avarice, Luxury, and Gluttony. And for that Reason fly licentious Conversation, Taverns, Gaming-Tables, Comedies, Spectacles, &c. and likewise Smoaking to Excess; for, in my Opinion, there is nothing more hideous, than to see a Parson, who should edify his Flock by his Sobriety, Gravity, and Modesty, always in a Publick House, or always with a Pipe in his Mouth, and a Pot under his Nose. He'll soon renounce, or rather abhor these scandalous Practices, if he flies Idleness, by regulating how he is to employ all the Hours of the Day, and dividing them between his several Functions: *V. gr.* Appointing a Time for his Prayers, or to recite his Liturgy; another for reading some Chapter of the Bible; another for his publick Functions at Church; another to study Theology; and another to visit the Sick of his Parish; taking Care, however, in this Regulation of his Time, that the Things which are of Obligation, or Precept, should not prejudice those which are of Council only. *V. gr.* That he should not apply himself to Reading, when he should visit a sick Person, who calls for his Assistance; for then the Salvation of that Sheep in Danger, is preferable to the Instruction of the Pastor.

The Obligations of a Curate, Parson, or Rector, towards his Parishioners, are as follow:

1. He must reside in his Parish, not of a local only, but of an effective Residence; otherwise, how can he discharge all his Obligations? How could he know his Flock, and administer the Sacraments to them? How could he feed them, with the Word of God, and with his Example, &c. A Pastor who forsakes his Flock, is call'd an Idol, *Zech. xi.* an Idol has Eyes, Ears, Hands, and Feet; but can neither see, hear, act, nor walk. Likewise, a Pastor guilty of Non-residence, though he may have several Talents, especially of Learning, Wisdom, and Eloquence; is as useless to his Parishioners, as if he was an Idol.

2. He is oblig'd to feed his Flock with the Word of God, and with his Example. 1 Pet. v. 2. *Feed the Flock of God which is among you.* First with the

Word of God, not by reading only two or three Lines out of a Paper, in a sleepy, canting Tone, or in such Hast, as if the Parson wanted to finish almost as soon as he has begun; but with that Zeal, Gravity, and Unction, necessary to convince his Auditors of the Truth he announces to them. Secondly, By his Example; because a Pastor, according to Christ's Doctrine, John x. 4. *Goes before his Sheep.* Therefore how scandalous it must be to see him attempt to lead his Flock, after he has been so long sitting at a Tavern, that he himself wants a Leader; or when, instead of leading them to Church, he leads them, by his Example, to Playhouses, Balls, Assemblies, &c.

3. He is to administer the Sacraments to his Sheep, according to this Passage of St. Paul, 1 Cor. iv. 1. *Let a Man so account of us, as of the Ministers of Christ, and Stewards of the Mysteries of God.*

4. He must take Care of the Sick. First, Because by that Care he gains the Confidence and Good-will of his Parishioners; according to this Passage of Eccles. vii. 2. *Non te pigeat visitare infirmum, ex hoc enim in dilectione firmaberis.* Secondly, The Parishioners are better dispos'd, at that Time, to receive the salutary Advice of their Parson. That Visitation does not consist only in kneeling by the Bed-side of the Sick, and muttering five or six Prayers in Hast; but in inspiring him with a just Horror, for his past Offences, exciting him to Repentance, and preparing him for that dangerous Passage from Time to Eternity; for that critical Moment when he is to appear before a just and impartial Judge, who will call him to an Account for all the Actions of his Life, even the most indifferent; and who will punish or reward him according to his Desert; tempering the Notions he will give him of the Severity of that Judge, with those of his incomprehensible Mercy, that he may not be drove to Despair, nor depart with too much Confidence. Those Visits, of a Parson to his sick Parishioners, should always be disinterested, lest the Consciousness of the Avarice of the Pastor should deter the Sheep from wishing for his Visits.

These Reflections lead me into others, on a Disorder which happens but too often in Parishes, and which is a Scandal, I will not say to Christianity, that's too little, but even to Mankind; and which, I hope, 'tis in the Power of the Clergy to remedy; I mean the burying of the Dead: For I have seen (I say it with the greatest Horror, for those detestable Monsters, who are in nothing different from the Brutes, but in their Cruelties to their Fellow-creatures) tossing from one Side of the Street to another, poor miserable Objects, ready to give up the Ghost, and capable, by their Sighs and Groans, to render sensible, and excite to Compassion of, the very Stones, which they laid upon, for Fear of being put to the Charge of burying them. Alas! what can be those Charges, which make the Avarice of those Anthropophages revolt against Compassion and Humanity? Sure it can't be the Fees of the Church; for it would be a sacrilegious Temerity, even to suppose that a Parson would not relinquish those Fees, to shelter a Member of that divine Chief of whom they call themselves Ministers, from the Insults of the Elements, and of the Brutes, which are endu'd with more Compassion than those who rank themselves above them, and by a Pretence to Rationality, seem choak'd at the very Sight of so deplorable a Spectacle: But as that can't be the Occasion of so great a Piece of Inhumanity, I would be glad to know some other, though I am afraid they can't alledge any that could justify their barbarous Conduct.

5. A Curate must take Care that there be in his Parish Christian Schools, where Children are to learn, not only to read and write, but likewise the Principles of their Religion; since there are no better Means to advance Christianity: For it is known, by Experience, that we are always strongly inclin'd to what we have learn'd in our Infancy. Whence this; Prov. xxii. 6. *Train up a Child in the Way he should go; and when he is old he will not depart from it.*

6. He

6. He ought to reprimand his Parishioners, when guilty of any considerable Faults; because a Curate is the Father, and, in some Measure, Judge of his Parishioners; therefore he is oblig'd, not only in Charity, but in Justice, likewise, to hinder them, as much as it is in his Power, from committing any Disorder. Thus the Apostle St. Paul advises his Disciple Timothy to reprove, rebuke, exhort, &c. But that the Correction may have the desir'd Effect, it must be attended with these two Circumstances: 1. It must be made with Charity and Mansuetude, at the Example of Christ; who says, Mat. ii. 29. *And learn of me, for I am meek, and lowly in Heart.* 2. It must be done with Prudence, i. e. he ought to have Regard to the Circumstances of the Time, Place, and the Persons; sometimes admonishing publicly, sometimes privately, as dictated by his Prudence.

The Obligations of a Curate towards his Church, are, 1. To take Care that the Baptistry, and all the rest of the Church, should always be kept very clean. 2. That the Vessels, and other Things necessary for the Celebration of the Lord's Supper, as well as the Books for that divine Office, should be in good Order. 3. That the Intentions of the Founders, as to the divine Service, should be exactly fulfill'd. 4. To mind that the Revenues of the Church may be apply'd to proper, not profane Uses. 5. To keep a Register for the Baptism, one for the Marriages, and another for the Burials.

The Regular Clergy is compos'd of Abbots, Priors, Abbesses, Monks, Friars, Nuns, &c.

ABBOT, or ABBAT, (from the Hebrew, *ab*, which signifies Father, in Syriac *Abba*, in Greek, *Αββα*, in Latin, *Abbas*, and in French, *Abbe*) is the Superior of a Monastery of Monks erected into an Abbey or Prelacy. The Name *Abbot* appears as old as the Institution of Monks itself. The Governors of the primitive Monasteries assume indifferently the Titles *Abbot*, or *Archimandrite*. They were not then ranked among the Clergy, and St. Jerom writing to *Heliandus*, says expressly *alia Monachorum est Causa, alia Clericorum*. In those early Days the Abbots were subject to the Bishops and the ordinary Pastors; none of them were ordained, but were only Laicks, who having renounced the World, had retired into Solitudes, and who having attained at a greater Degree of evangelical Perfection than those, among whom they had retired, were chosen by them for their Superiors. They went on Sunday to the Parish-Church with the Rest of the People; or if they were too remote, a Priest was sent them to administer the Sacraments; 'till at length Monks were allowed to have Priests of their own Body. The *Abbot* or *Archimandrite* himself was usually the Priest, but his Function extended no further than to the spiritual Assistance of his Monastery; and he remained still in Obedience to the Bishop, but they soon wore off their former Plainness and Simplicity, and began to be looked on as a Sort of little Prelates. In Time they would be independent of the Bishop, and became so insupportable, that the first Regulation of the Council of Chalcedon, held in 451, forbids the Monks (several of whom under Pretence of a solitary Life, which cannot be too much respected when sincerely professed, troubled the Peace of the Churches and of the Cities) building any more Monasteries against the Will of the Bishop, and of the Master of the Place; it subjects them all to the Diocesan Prelate, and orders them to keep their Solitude, to think of fasting and praying, without meddling with secular or ecclesiastical Affairs, unless their Bishop be pleased to employ them on some Occasions. The 19th Canon of the Council of Orleans, held in 511, orders that the Abbots be under the Jurisdiction of the Bishops, and corrected by them, when they commit any Fault: This notwithstanding, in Time, many of them carried the Point of Independency; and got the Appellation of Lord, with other Badges of the Episcopate, particularly the Mitre and the Crosier: Hence arose new Species and Distinctions of Abbots: Mitred

and not mitred, crosier'd and not crosier'd, *cenobical Abbots*, Cardinal Abbots, &c.

MITRED ABBOTS are those privileged to wear the Mitre, and having withal a full episcopal Authority within their several Precincts; in England these were called *Abbots sovereign*, and *Abbots general*, and were Lords of Parliament. Of these Sir Edward Coke reckons twenty-seven, besides two mitred Priors. The Rest who were not mitred were subject to the Diocesan. When the Abbots first assumed the Mitre, the Bishops made heavy Complaints of their Privileges being invaded by the Monks, and were particularly offended, that in Synods and Councils there was no Distinction between them. On this Occasion Pope Clement IV. ordered that the Abbots should only wear their Mitres embroidered with Gold, and leave Jewels to the Bishops. Though I have seen Abbots wear their Mitres loaded with Jewels, and Bishops theirs, made of a Piece of plain Gold, or silver Tissue, without Jewels. *Pere Hay*, in his Book, entitled *Astrum Inextinctum*, maintains that the Abbots of his Order have not only an Episcopal, but even a Papal Jurisdiction, *Potestatem quasi Episcopalem, imo quasi Papalem*; and as such can confer the lower Order of Deacon and Subdeacon, which must be false; since the Power they have usurped is very different from the Consecration of Bishops whereby they receive the Power of the Imposition of Hands.

CROSIER'D ABBOTS are those who bear the Crosier or Pastoral Staff, which is a gold or silver Staff, crooked a-Top, and pointed at Bottom; expressed in the Verse:

Curva trahit mites, Pars pungit acuta Rebelles.

There are some crosier'd and not mitred, as the Abbot of St. Vincent du Mans, who is a regular, elective, and triennial Abbot, the Abbot of the Benedictine Abby at Bourges, &c.

ABBOTS are also divided into regular Abbots, and Abbots in Commendam. The regular Abbots are real Monks, or Religious who have taken the Vows, and wear the Habit of the Order. These are all elective, and most of them are Abbots but for a Time; though some are for Life, as the Abbot of the celebrated Abbey of Prierre, of Bernardin Monks in Brittany. Abbots in Commendam, at the Nomination of Princes, though the Term *Commendam* insinuates, that they have only the Administration of their Abbeys for a Time; yet they do hold and reap the Fruits of them for ever. Their Bulls give them a full Power *tam in Spiritualibus quam in Temporalibus*; and yet it is true that the commendatory Abbots do not perform any spiritual Offices; nor have they any spiritual Jurisdiction over the Monks; nay, they are seldom or never seen in the Abbey, after they have once took Possession of it. The Knights of Malta can be Abbots in Commendam, though they are not in Orders, because they are considered as religious, having made the three Vows of Poverty, Chastity, and Obedience, and often a fourth, of keeping neither of them.

Some Canonists rank the *Commendam* in the Number of Benefices. It is in Truth no more than a canonical Title or Provision to enjoy the Fruits of a Benefice: But as such Provisions are contrary to the ancient Canons, none but the Pope, by Dispensing with the old Law, can grant them.

The English History speaks very little of these commendatory Abbots, and it is probable the Practice never prevailed much in this Kingdom. Hence many English Writers have been led into the Mistake of supposing that all Abbots are Monks. Of this we have a remarkable Instance in the Dispute about the Inventor of the Lines for transforming geometrical Figures, called by the French the *Robervallian Lines*. Dr. Gregory in the Philosophical Transactions, Anno 1694, rallies the Abbot Galloys, who held the Abbey of St. Martin de Cores in Commendam, with being a Monk. 'The good Father, says he, imagines we are returned into that

that fabulous Age; a Monk might be allowed to say what he pleased, which Passage the *Abbot* takes hold of, and returns the Raillery with Interest on the good Doctor, in the Memoirs of the Academy, Anno 1703.

The Ceremony whereby *Abbots* are created is but a simple Benediction. It antiently consisted in cloathing him with the Habit, called *Cuculla*, a Cowl, putting the Pastoral Staff in his Hand, and the Shoes, called *Pedales*, or *Pedules* on his Feet.

The Monastery or religious House, which has an *Abbot*, either *Regular*, or in *Commendam*, for superior, is called *Abbey*. *Fauchet* observes, that in the early Days of the *French* Monarchy, Dukes and Counts were called *Abbots*; and Dutchies and Counties *Abbeys*. Many Persons of the prime Quality, without any Concern in the monastick Life, took the same Quality; even some of the Kings of *France* are mentioned in History under the Title of *Abbots*. *Philip I. Louis VI.* and afterwards the Dukes of *Orleans*, are called *Abbots* of the Monastery of *St. Agnan*. The Dukes of *Aquitain* were called *Abbots* of the Monastery of *St. Hilary*, at *Poitiers*, and the Earls of *Anjou*, of *St. Aubin* at *Angers*, &c.

The Revenue of an *Abbey* is divided into three Parts, one Part for the *Abbot*, one for the Maintenance of the Monks, and the other for the Poor, and the Reparations of the Church, and of the Monastery. The *Abbot* is also obliged to Hospitality, and allows a certain Income for the Reception of Travellers, who are lodged in the abbatial House. But it is very easy for a Traveller to distinguish between an *Abbey in Commendam*, and a regular one. For in an *Abbey in Commendam* Hospitality is very little or not at all practised, the *Abbot* having always too little Revenue, let it be ever so great, for himself; the Divine Service is neglected, and the Building falls to Ruin, for want of Reparation, whenas in a regular *Abbey* Strangers are civilly and liberally entertained, the Divine Service celebrated with much Decency, the Buildings kept in very good Repairs, and the Poor very well fed.

There are besides *Abbots*, other Superiors of Monasteries, called *PRIORS*, who are either *Cloistral* or *Conventual*. *Conventual Priors* are the same as *Abbots*, all the Difference between them being in Name, both having the same Rights, and both alike Governors of Monasteries. *Conventual Priors* are of two Kinds, viz. *Regular Conventual Priors*, who govern religious Living in Community, and *Secular or Commendatory Conventual Priors*. *Conventual Priors* are obliged to take up the Priesthood within a Year, or at most two, from the Date of their Provision; in Default whereof their Benefices are declared vacant. They must be 25 Years old, ere they can govern the Convent; and 20 if the Convent be governed by another.

Cloistral PRIOR, is he who governs the Religious of an *Abbey*, or *Priory in Commendam*, so called because he has the Superiority in the Cloister or Monastery.

The Religious of an *Abbey* or *Priory* call themselves Monks, by way of Distinction from the other Religious, who are called *Fryars*; and every Monk assumes the Title of *Don*, *Dominus*, viz. *Don Paul*, *Don James*, &c. whenas the other Religious are called *Fathers*, viz. *Father Paul*, *Father James*, &c. though the Name *Monk*, from *μοναχος*, *solus*, alone; denoted antiently a Person who retired from the World, to give himself up wholly to God, and to live in Solitude and Abstinence. Such were the Hermits and Anachorets, who withdrew into Deserts, and lived remote from all Commerce of Mankind.

Father Heliot traces the Origin of Monks up as early as the Time of the *Therapeutæ* (who according to *Philo*, in his first Book of the contemplative Life, where a People spread throughout most of the known World, but particularly throughout *Egypt*, and about *Alexandria*, who renounced their Friends, their Goods, &c. and who, after discharging themselves of all temporal Concerns, retired into solitary Places, where they had each their separate Mansion, called *Semnum* or Monastery) and maintain that there had been an

uninterrupted Succession of Monks from these *Therapeutæ* to *St. Anthony*. Others, on the contrary, go no farther back than *St. Paul* the first Hermit.

The *Monks*, at least the antient ones, were distinguished into *Solitaires*, *Cœnobites*, and *Sarabaites*. The *Solitary* are those who live alone in Places remote from Towns, or Habitations of Men, as do still some Hermits; they have for their Institutor *St. Paul*, first Hermit. The *Cœnobites* are those who live in Community with several others, in the same House, and under the same Superiors. These have *St. Anthony*, first *Abbot*, for their Founder. The *Sarabaites* were strolling *Monks* having no fixed Rule or Residence. Those we call *Monks* now-a-Days are *Cœnobites*, who lived together in a Convent or Monastery, who make Vows of living according to a certain Rule established by the Founder, and wear a Habit which distinguishes their Order.

These *Monks* (few excepted, who are received for *Lay-Monks*, i. e. for the Service of the Convent, and have no Literature) are all Ecclesiasticks, or designed for the ecclesiastical State, i. e. That each Order appoints in every Province of the Order one or two Monasteries, (according to the Extent of the Province, and the Number of Monasteries it contains) where the young *Monks*, after they have made their Vows, study the Philosophy and Theology, under Professors of the same Order, to render them capable of the sacerdotal Functions: When they have attained at the Age prescribed by the Canons, and are judged capable to undergo a severe Examen, they are presented to the Diocesan Bishop, who ordains them if he finds them capable. Out of these Monasteries the others of the Province are filled with Priests, who, with the Licence of the Bishop of the Diocese where they live, can hear Confession; but in every Thing else they refuse to acknowledge the Jurisdiction of the Bishop, and know no other Superior than their *Abbot*, if he be a regular one, or their Prior, if in *Commendam*; though several Bishops, in several Ages, considering these pretended Immunities, as contrary to the antient Canons and the ecclesiastical Discipline, have often attempted to bring the *Monks* under their Jurisdiction, and to a Right of Visitation in their Monasteries, but to no Purpose.

I find no other Difference between *Monks* and *Friars*, than that the *Monks* are endowed, or have a fixed Revenue, and the *Friars* have none, otherwise they are like *Monks* in all other Particulars, and enjoy the same Immunities and Privileges. They are rather more serviceable to the Church, for they preach, hear Confessions, catechise and help the poor Country Curates, whose Parishes cannot afford to maintain a Vicar in the Discharge of their Functions. Most of these *Friars* are Mendicants, and depend, almost entirely, for their Subsistence, on the Charity of the People, though they seldom want Necessaries. They instruct by their Doctrine, for they are ordinarily very learned, and edify by their Example: From among them have been taken Popes, Cardinals, and Bishops.

Friars have no *Abbots*, but they all lead a *Cœnobitick* Life, under a Superior, which those of the Order of *St. Francis* call *Guardian*, and those of the Order of *St. Dominick*, *Prior*. The *Guardian* has under him a Vicar, who, in his Absence, supplies his Place, and governs the Monastery; both *Guardian* and Vicar are at the Nomination of the Provincial, who is the Superior of a whole Province, all the Monasteries whereof he visits twice or three Times during his Provincialate, which lasts also three Years. This Provincial is elected at a Provincial Chapter, as they call it, composed of all the Guardians of the Province, and of a Deputy of each Monastery, by a secret Scrutiny. The Provincials of each Province assemble ordinarily at *Rome* once in seven Years, for the Election of a General, who during his Generalate has the Government of the whole Order; and both the General and Provincial have their Council composed of Persons of the greatest Merit, called *Definitors*; a General is seldom raised to that Office, before he has been *Definitor General*, nor a Provincial before he has been *Definitor Provincial*.

Provincial. The *General* of either of these religious Orders is respected by all the *Roman Catholick* Princes, as a Person of the greatest Rank among the *Clergy*, and is introduced to their Audience with the Ceremonies us'd at the Introduction of an Ambassador Extraordinary of a crown'd Head. He remains cover'd, in the King of *Spain's* Presence, as a Grandee of *Spain* of the first Class, and is carried to the King of *France's* Audience, in his Majesty's own Coaches.

Though Friars are represented in *Protestant* Countries, as the Spawn of the Whore of *Babylon*, and Locusts which infest the Earth; I must, however, say this of them, to their Honour, and their Enemies Confusion, that their Learning, Piety, unlimited Charity, and Disinterestedness, conspicuous to the whole World, except to those who will be voluntarily blind, should give us a better Opinion of them, and make us rather pity them, if they are in the wrong, than despise, or abuse them; since most of them are Persons of Education, and Birth, who abandon all the Poms and Vanities of this World, and even every Thing that could endear it most to them, to follow that thorny, difficult, and narrow Path, which they imagine leads to Heaven: If they mistake it for that easy and wide one, shewn by others, the greater their Mistake, and the more are we to be struck with a compassionate Admiration, to see that they have Courage and Perseverance enough to prefer a Life, so contrary to our natural Inclinations, to one which indulges them all. If they were worthless Wretches, or Scoundrels, who embrace that Manner of Life, to avoid Poverty, and Misery; but no, there are in those Monasteries Heirs to very considerable Estates, and of very illustrious Houses, whom the Hope of gaining an everlasting Kingdom, by the same Means *Christ* himself has enter'd it, has tore from the Bosom of tender and indulgent Parents, who had brought them up in all the Delicacies, Pomp, and Grandeur of this World: And such we often meet cover'd with a despicable Sack, bare-footed, and bare-legg'd, amidst the most rigorous Seasons, who were design'd for one of the greatest Ornaments of a Prince's Court, or for the Command of Armies, or to sit on *Astrea's* Tribunal. No Doubt, but among them, as in all other Societies, there are some worthless, or corrupted Members; but that is not a sufficient Reason for us to despise the whole Body; unless we pretend to despise them because their pious and exemplary Life is a tacit Reproach of our licentious one; and we are sorry, perhaps, to see before us so perfect a Copy of that Model of an evangelical Life painted in the Gospel in such lively Colours. The only Fault I find in them, is, their receiving sometimes among them young Subjects, who are not yet of an Age to make a Choice, and who, by an indiscreet Zeal, embrace a Kind of Life which they take a Disgust for when they are arriv'd at the Age of Discretion: None should be receiv'd into a Monastery before the Age prescrib'd by the Canons, for to be ordain'd Deacon, *i. e.* Two and twenty; for then, and not before, a Man is capable to make a Choice: But it is barbarous to receive them at fifteen or sixteen Years of Age, when they want yet a Tutor. For if the Law does not judge them capable, then, to possess an Estate; how can they be capable to make a Choice for Life? This gives a good Plea for the Enemies of a monastick Life, who conclude from thence, that if they were not taken so young in a Monastery, and when they have not yet the right Use of their Reason, none would be a *Monk*, or a *Friar*.

NUNS, are also consider'd as Part of the *Regular Clergy*; they are Female Religious, who consecrate themselves to the Service of God, in the same Manner Monks and Friars do, and lead a cœnobitick Life in a Monastery, under the Government of an *Abbeſs*, or *Prioreſs*, and sometimes of both.

The *Abbess* has the same Rights, and Authority over her Nuns, that the Abbots *Regular* have over their Monks. The Sex, indeed, does not allow her to perform the spiritual Functions annex'd to Priest-

hood, wherewith the Abbot is usually invested; but there are Instances of some *Abbeſſes* who have a Right, or rather Privilege, to commission a Priest to act for them. *Abbeſſes* are made by a simple Benediction, like the Abbots, wear the pectoral golden Cross, and have the Crosier carry'd before them at Church, in high Festivals. They are *Abbeſſes* for Life, and in *France* at the King's Nomination. They have their Apartments apart, where they are attended by their favourite Nuns, and ordinarily serv'd by Lay Servants. They pretend to relieve immediately from the holy See, and are thereby exempted from the Visitation of their Diocesan. *F. Marten*, in his Treatise of the Rites of the Church, observes, that some *Abbeſſes* have formerly confess'd their Nuns. He adds, that their excessive Curiosity carry'd them such a Length, that there arose a Necessity of shaking it. *St. Basil*, in his Rules, allows the *Abbeſs* to be present with the Priest at the Confession of her Nuns; but these Rules have never been observ'd in the *Latin* Church, neither could they be well relish'd by the Nuns of our Days; and they are to be consider'd as contrary to that great Secrecy Confession is to be attended with. *Abbeſſes* are not confin'd to a formal Cloyster, as the Nuns are; for they can go out as often as the Affairs of their Abby require it; and they find always some Affairs to call them out: For I have had some Relations *Abbeſſes*, who were oftener at *Paris*, than in their Monastery. Though some of them are very religious Observers of the Cloyster, and keep neither Coaches, nor other Vehicles, to carry them Abroad. The *Abbeſs* of *Fontevrault*, in *France*, is Superior of the Monks, as well as of the Nuns, and they are all receiv'd to Profession by her.

An *Abbeſs* can take what Priests she pleases for her Chaplains, but can't commission them to hear the Confession of her Nuns, without the Approbation of the Diocesan. Under her there is a *Prioreſs*, who has the Direction of the Nuns, as to the Observance of the Rules of the Monastery, of which the *Abbeſs* seldom takes any Notice.

Nuns who have no *Abbeſs*, have a Superior, whom they chuse among them, commonly once in three Years, for they are never for Life; and those Monasteries are commonly better regulated than the Abbeys. They are under the Jurisdiction of the Diocesan, who has Right of Visitation, but seldom or never uses it.

There are ROYAL ABBEYS OF NUNS, where they receive none but Persons of the first Rank, and who are sometimes so infatuated with their Nobility, that they entertain those who visit them with nothing else but their noble Descent. All I can say of them, is, that most of them are Angels in mortal Bodies; for almost their whole Time is spent in the Service of God: The divine Office is perform'd by them with that Decency, Piety, Devotion, and Majesty, that to hear them is a Sort of anticipated celestial Felicity. And all that's said against their Modesty, Piety, and Virtue, are Impostures, or scandalous Romances, invented by the declar'd Enemies of a monastick Life. Perhaps once in two or three Centuries there have been one or two bad Nuns found; but is that a sufficient Reason to suspect them all of Debauchery? What! because my natural Infirmities, and vicious Inclinations, persuade me that the Practice of so much Virtue is above a human Strength; must I believe it impracticable, with the Help of an extraordinary Grace, which I am depriv'd of, because, perhaps, I do not desire it, nor ask for it? Methinks we should admire Virtue, where-ever it is to be found, even among the Enemies of the *Christian* Name, much more among those who believe in *Christ*, as we do. What! because there are some Members of the *English Clergy* who don't live according to their Profession, must we condemn them all? When we are conscious that there is so vast a Number of wholesome and worthy Members of the *Anglican* Church, the Radiancy of whose excellent Perfections can't so much as be eclips'd by the small Cloud of the Imperfections of very few of them.

The *Clergy* of the Church of *England*, are all *Seculars*, and they have reform'd the *Regular Clergy*, at the Reformation, for Reasons best known to themselves; ever since that Reformation, the King has been declar'd the Head of the *English Clergy*, and has under him Archbishops, Bishops, and the *inferior Clergy*, who all together compose an Hierarchy, almost in the same Form as the *Roman Church* does. Though the *English Clergy* formerly claim'd an Exemption from all secular Jurisdiction, yet *Matt. Paris* tells us, *William the Conqueror* subjected the Bishops, and Abbays who held *per Baroniam*, and who, till then, had been exempt from all secular Service; and order'd that they should be no longer free from mortuary Services. To this Purpose, he prescrib'd arbitrarily what Number of Soldiers every Bishoprick and Abbey should provide, to serve him and his Successors in War, and laid up this Register of ecclesiastical Servitude in his Treasury. But, in Effect, the *Clergy* was not exempt from all secular Service till then, as being bound by the Laws of King *Edgar* to obey the secular Magistrate in three Things, *viz.* upon an Expedition to the Wars, and in contributing to the building and repairing of Bridges, &c.

The Privileges of the *English Clergy*, by the antient Statutes, are very considerable: Their Goods are to pay no Toll in Fairs or Markets; they are exempt from all Offices, but their own; from the King's Carriages, Posts, &c. from appearing at Sheriffs Tourns, or Frank-pledges; and are not to be fin'd or amerc'd, according to their spiritual, but their temporal Means. A *Clergyman* acknowledging a Statute, his Body is not to be imprison'd; if he be convicted of a Crime, for which the Benefit of *Clergy* is allow'd, he shall not be burnt in the Hand; and he shall have the Benefit of *Clergy in infinitum*, which no Layman can have but once. The *Clergy*, by Common Law, are not to be burthen'd in the general Charges with the Laity, nor to be troubled or incumber'd, unless expressly nam'd, and charg'd by the Statute; for general Words don't affect them. Thus, if an Hundred be su'd for a Robbery, the Minister shall not contribute, though the Words are, *Gentes demorantes*: Neither are they ass's'd to the Highway, Watch, &c.

The Revenues of the *Clergy* were antiently more considerable than at present. *Ethelwolf*, in 855, gave them the Tithe of all Goods, and the Tenth of all the Lands of *England*, free from all secular Services, Taxes, &c. The Charter whereby this was given them, was confirm'd by several of his Successors, *Edmond*, *Edgar*, *Ethelred*, *Alfred*, and *William the Conqueror*; which last finding the Bishopricks so rich, erected them all into Baronies, each Barony containing thirteen Knights Fees, at least. But since the Reformation the Bishopricks are much impair'd, neither is it necessary that they should be so rich, for that would perhaps induce the Bishops to go a whoring again with *Babylon*. The Revenues of the *inferior Clergy*, in the general, are small; a third Part of the best Benefices being antiently, by the Pope's Grant, appropriated to Monasteries; upon the Dissolution whereof, they became Lay Fees. Indeed, an Addition was made, 2 *Anno*; the whole Revenue of Firstfruits and Tenths being then granted, to raise a Fund for the Augmentation of the Maintenance of the poor *Clergy*; pursuant to which, a Corporation was form'd, by the Name of *The Governors of the Bounty of Queen Anne, for the Augmentation of the Maintenance of the poor Clergy*; to whom the said Revenues were convey'd in Trust.

We have mention'd already, that there are two Archbishops in the *Anglican Church*, *viz.* the Archbishops of *Canterbury* and *York*, who are also call'd Primates, and Metropolitans; with this Difference only, that the former is call'd *Primate of all England*; and the latter, simply, *Primate of England*.

The Archbishop of *Canterbury* had antiently Jurisdiction over *Ireland*, as well as *England*, and was stil'd a Patriarch, and sometimes *alterius orbis Papa*, and *orbis Britannici Pontifex*. Matters were done and

recorded in his Name, thus, *Anno Pontificatus nostri*; primo, &c. he was also Legate born of the holy See; he even enjoy'd some special Marks of Royalty; as to be Patron of a Bishoprick, which he was of *Rocheſter*; to make Knights, coin Monies, &c. He is still the first Peer of *England*, and next to the royal Family, having Precedence of all Dukes, and all great Officers of the Crown. He has, by Common Law, the Power of Probate of Wills and Testaments, and granting Letters of Administration. He has also a Power to grant Licences and Dispensations in all Cases formerly su'd for in the Court of *Rome*, which is an Expedient which even the *Roman Catholick* Princes should use, to hinder the Money from being transported out of the Kingdom. He also holds several Courts of Judicature; as Court of Arches, Court of Audience, Prerogative Court, and Court of Peculiars.

The Court of ARCHES, (thus call'd from the arch'd Church, or Tower of *St. Mary le Bow*, where it was wont to be held) is a Court to which Appeals lie in ecclesiastical Matters from all Parts of the Province of *Canterbury*. The Officers belonging to it, are the Judge, Actuary, Registers, Advocates, Proctors, &c. The Judge of the Court of Arches is call'd the Dean of the Arches, or the Official of the Arches Court, &c. with which Officiality is commonly join'd a peculiar Jurisdiction over thirteen Parishes in *London*, term'd a Deanery, exempt from the Authority of the Bishop of *London*, and belonging to the Archbishop of *Canterbury*; of which the Parish of *Bow* is one and the principal. Others suppose the Denomination and Functions of Dean of the Arches to have arose hence, that the Archbishop's Official, or Dean, being oft employ'd abroad in foreign Embassies, the Dean of the Arches was his Substitute in this Court. This Judge, on any Appeal made, forthwith, and without any further Examination of the Cause, sends out his Citation to the Appellee, and his Inhibition to the Judge, from whom the Appeal was made. The Advocates, who are allow'd to plead in the Arches Court, are to be Doctors of the Civil Law in one of the Universities.

The Court of AUDIENCE, is chiefly concern'd in Differences arising upon Elections, Consecrations, Institutions, Marriages, &c.

The Archbishop of *York* has the like Rights in his Province, as the Archbishop of *Canterbury*; has Precedence of all Dukes not of the Royal Blood, and all Officers of State, except the Lord High Chancellor. He had the Rights of a Count Palatine over *Hexhamshire*, in *Northumberland*.

Under these two Archbishops are twenty-six Bishopricks, whereof twenty-two are reckon'd in the Province of *Canterbury*, and four in the Province of *York*; so that there are, besides the two Archbishops, twenty-four Bishops, all which, as we have already observ'd, have the Title of Lords, by Reason of their Baronies, annex'd to their Bishopricks, and have Precedence over all other Barons, both in Parliament, and in other Assemblies. Among these presides always the Bishop of *London*, who, by antient Right, is accounted Dean of the episcopal College of that Province, and by Virtue thereof is to signify the Pleasure of his Metropolitan to all the Bishops of the Province, to execute his Mandate, to disperse his Missives on all Emergencies of Affairs, to preside in Convocations of provincial Synods, during the necessary Absence of the Metropolitan. Next to *London*, in Parliament, precedes *Durham*, and then *Winchester*; all the rest of the Bishops take Place according to the Seniority of their Consecration.

The Functions of an *English Bishop* consist in that he may act, either by his episcopal Order, or by his episcopal Jurisdiction. By his episcopal Order he may ordain Deacons and Priests; may dedicate Churches and Burying-places, may administer the Rites and Ceremonies of Confirmation, without whom, none of these may be done. The Jurisdiction of a Bishop is either ordinary, or delegated; the ordinary is what, by the Laws of the Land, belongs to each Bishop in his

his own Diocese; the delegated is what the King is pleas'd to confer upon him, not as a *Bishop*, but as he is a Subject, and a considerable Member of the Kingdom; for all *Clergymen* are, in *England*, judg'd fit to enjoy divers temporal Honours and Employments: As, 1. To be in the Commission of the Peace. 2. To be of his Majesty's Privy Council. 3. To be employ'd in publick Treaties and Negotiations of Peace. 4. To enjoy some of the great Offices of the Crown; as to be Lord Chancellor, Lord Treasurer, &c.

In the ordinary Jurisdiction of a *Bishop*, as *Bishop*, may be consider'd, either the Jurisdiction itself, or what is instated in him by the Laws of the Land, for the better Execution of that Jurisdiction. The Jurisdiction itself is establish'd partly by Statute-Law, as to licence Physicians, Surgeons, and Schoolmasters; to unite and consolidate small Parishes, to assist the Civil Magistrates in the Execution of some Statutes concerning ecclesiastical Affairs, to compel the Payment of Tithes and Subsidies due from the *Clergy* to the King. Partly by Common Law; as upon the King's Writ to certify the Judges touching legitimate and illegitimate Births and Marriages; to require, upon the King's Writ, the burning of an obstinate Heretick, (which I think is against that meek Spirit of the Reformation) also to require the King's Writ for imprisoning the Body of one that obstinately stands excommunicated, for forty Days. And partly by Common and Ecclesiastical Law together; as to cause Wills of the Deceas'd to be prov'd, to grant Administration of Goods of such as die intestate, to give Orders for the gathering and preserving of perishable Goods, where none are willing to administer; to cause Accounts to be given of Administrations, to collate Benefices, to grant Institutions to Benefices upon Presentations of other Patrons, to command Inductions to be given, to order the collecting and preserving of the Profits of vacant Benefices, for the Use of the Successors; to defend the Franchises and Liberties of the Church, to visit their particular Dioceses once in three Years, and therein to enquire of the Manners, Carriages, Delinquencies, &c. of Ministers, of Churchwardens, of the rest of the Parishioners, and, amongst them, of Physicians, Surgeons, Schoolmasters, and Midwives; of Wardens of Hospitals, how they perform their several Duties and Trusts; also, of all others professing *Christianity*, and offending either against Piety, as by Blasphemy, Perjury, Errors against the Trinity, or other Articles of Faith, Schism, Conventicles, Absence from divine Service, unlawful Abstinence from the Sacraments; or else offending against justice; as the delaying of the Legacies given to the Poor, or pious Uses, Dilapidations of Buildings, or Goods belonging to the Church; taking the Usury beyond the Rate allow'd by Statute, Simony, Perjury, &c. or by offending against Sobriety, as Drunkenness, Incest, Adultery, Fornication, filthy Speech, clandestine Marriages, as for want of thrice publishing the Banns, the want of Parents Consent, the want of Witnesses, which must be above two, or marrying in a private Place, in an undue Time, before Eight in the Morning, and after Twelve in the Day.

After a *Bishop* has been consecrated, himself, or his Proxy, which is usual, any Day between the Hours of Nine and Eleven in the Morning, is conducted into his Cathedral Church by the Archdeacon of *Canterbury*, by whom all the Bishops of that Province are install'd, (or else by his Proxy, sometimes) and first he declares his Assent to the King's Supremacy, and swears, that unless he be otherwise dispens'd with, he will be resident according to the Custom of that Cathedral, and observe the Custom of the said Church, and cause others to observe the same. Then the Archdeacon, with the petty Canons, and Officers of the Church, accompany the *Bishop* up to the Choir, and there place him on the Seat prepar'd for the *Bishops*, between the Altar and the right Side of the Choir, and then the Archdeacon pronounces these Words, in *Latin*, *Ego auctoritate mihi commissâ induco & inthronizo Re-*

verendum in Christo Patrem Dominum, N. N. Episcopum; & Dominus custodiat suum introitum & exitum, ex hoc nunc & in seculum, &c. then the Subdean and the petty Canons sing the *Te Deum*; mean while, the *Bishop* is again conducted from his own Place to the Dean's Seat, and there, in Token of taking real Possession, he stands, till *Te Deum* is ended, together with other Prayers. After Prayers, the *Bishop* is conducted into the Chapter-House, and there plac'd on a high Seat; then the Archdeacon, and all the Prebends and Officers of the Church, come before the Bishop, and promise canonical Obedience to him: Finally, the publick Notary is by the Archdeacon requir'd to make an Instrument, declaring the whole Matter of Fact in this Affair. Then the said *Bishop* is introduc'd into the King's Presence, to do Homage for his Temporalities, or Barony, by kneeling down, and putting his Hands between the Hands of the King sitting in the Chair of State, and by taking a solemn Oath, to be true and faithful to his Majesty, and that he holds his Temporalities of him. Lastly, The new *Bishop* compounds for the First-fruits of his Bishoprick, that is, agrees for his first Year's Profits to be paid to the King, within two Years, or more, if the King pleases.

Antiently, *Bishops* in *England* did not ordinarily transact Matters of Moment, *sine Concilio Presbyterorum principalium*, who are then call'd *Senatores Ecclesiae*, and Collegues of the *Bishops*, represented in some Sort by the Prebends. In every Cathedral, or Bishop's See, there is a Dean, and divers Prebendaries, or Canons, whose Number is uncertain. *Deans* of the old Foundations, founded before the Suppression of Monasteries, are brought to their Dignities much like Bishops, the King first sending forth his *Congé d'Elire* to the Chapter, they electing, and the King granting his Royal Assent, the Bishop confirms him, and gives his Mandate to instal him.

Deans of the new Foundations (upon Suppression of Abbeys or Priories, transform'd by *Henry VIII.* into Dean and Chapter) are by a shorter Course install'd by Virtue of the King's Letters Patents, without either Election or Confirmation.

Among the Canons, or Prebendaries, in the old Foundations, some are *Canonici Actu*, having *Prebendam sedile in Choro & Jus Suffragii in Capitulo*; others are *Canonici in verbo*, (as they are call'd) having Right to the next Prebend that shall become void, and having already a Stall in the Choir, but no Vote in the Chapter. A Prebend is properly the Portion which every Prebendary of a Collegiate or Cathedral Church receives in the Right of his Place for his Maintenance, *quasi pars, vel portio prebenda*.

ARCHDEACONS are next in the Government of the *English* Church, and their Office is the same as that of *Archdeacons* in the *Roman* Church, *viz.* to visit two Years in three, and to enquire of Reparations and Moveables belonging to Churches, to reform Abuses in ecclesiastical Matters, and to bring the more weighty Affairs before the Bishop of the Diocese. He is also, upon the Bishop's Mandate, to induct *Clerks* into their Benefices, and thereby to give them Possession of all the Benefices belonging thereto. Many *Archdeacons* have by Prescription their Court and Officials, as Bishops have.

After the *Archdeacons*, are the ARCHPRIESTS, or RURAL DEANS, whose Office is, upon Orders, to convocate the *Clergy*, to signify to them, sometimes by Letters, the Bishop's Pleasure, and to give Induction for the Archdeacon living far off.

Next are the PRIESTS of every particular Parish, who are commonly call'd the *Rectors*, unless the predial Tithes are impropriated; and then they are stil'd *Vicars*, *quasi vice fungentes Rectorum*. Their Office is, to take Care of all their Parishioners Souls, to catechize the Ignorant, reduce the Straying, confirm the Wavering, convince the Obstinate, reprimand the Wicked, confute Schismatics, reconcile Differences among Neighbours, to exercise the Power of binding and loosing Souls, as Occasion shall offer, (which

Clause

Claufe confirms, that the Church of *England* is of the Sentiment of the *Roman Church*, as to the Power *Priests* receive, in their Ordination, of absolving a Sinner from his Sins, according to these formal and clear Terms of *Jesus Christ* himself, which want no Interpretation; *John xix. 23. Whose soever Sins you remit, they are remitted unto them; and whose soever Sins ye retain, they are retain'd*; to read duly divine Service, to administer the holy Sacraments, to visit the Sick, to marry, bury, render publick Thanks after Child-bearing, to keep a Register of all Marriages, Christenings, and Burials, that shall happen within the Parish, and to read divine Service, and Homilies appointed by Authority, without meddling, in their Sermons, with State Affairs, or stirring the Subjects up to Sedition against their Sovereign.

Lastly, *DEACONS*, whose Office is to take Care of the Poor, baptize, read in the Church, assist the Priest at the Lord's Supper, by giving the Cup only.

In the Church of *England*, instead of the *Acolythi*, *Ostiarii*, &c. of the *Roman Church*, who are in the lesser Orders, there are Laymen, call'd Churchwardens, whose Office is to see that the Church be in good Repair, fitly adorn'd, and nothing wanting for divine Service, Sacrament, and Sermons; that the Churchyard be fitly bounded and inclos'd; that there be an exact Terrier of the Glebe Land, and if any Thing belonging to the Church be detain'd, to sue for the same; to observe that all Parishioners come daily to divine Service, (but to do that they should be there themselves) to require the Penalty for Absence, to enquire after, admonish, and to present to the Bishop scandalous Livers; to collect the Charity of Parishioners for the poor Strangers, and not pocket it, nor spend it, in carousing and revelling; to declare and to execute the Orders of the Bishop, to see that none presume to vent his own Conceptions in the Pulpit, unless he has a special Licence so to do. The *Churchwardens* are elected every *Easter Week*, usually by the Parson and Parishioners, if they so agree; if not, then one by the Parson, and the other by the Parishioners.

There are also, in great Parishes, join'd with the Churchwardens, *Testes Synodales*, antiently call'd *Synod Men*; now, by Corruption, call'd *Sides-men*, who are to assist the Churchwardens in Inquiries into the Lives of inordinate Livers, and in presenting Men at Visitations.

Lastly, The *Sacristan*, by Corruption the *Sexton*, or *Clerk*, who is ordinarily to be chosen by the Parson only; he ought to be twenty Years old, or above, of a good Life, that can read, write, and sing. His Office is, to serve at Church the Priest and Churchwardens.

The Church of *England* has also an ecclesiastical Government different from that of the *Roman Church*, and even of all other *Protestant* Congregations; for the ecclesiastical Laws, and more weighty Affairs of the Church, are consulted in a national Synod, or the general Assembly of the *Clergy*, summon'd by the King's Writ, call'd *CONVOCATION*. That Writ is directed to the Archbishop of each Province, requiring him to summon all Bishops, Deans, Archdeacons, &c. and all the *Clergy* of his Province; whereupon the Archbishop of *Canterbury* directs his Letters to the Bishop of *London*, as his Dean Provincial, first citing himself peremptorily, and then willing him, in like Manner, to cite all the Bishops, Deans, Archdeacons, Cathedral and Collegiate Churches, and all the *Clergy* of his Province, to that Place, and at the Day prefix'd in the Writ; but directs, withal, that one Proclor sent for each Cathedral and Collegiate Church, and two for the Body of the *inferior Clergy* of each Diocese may suffice. The Bishop of *London*, accordingly, directs his Letters to the Bishops of every Diocese of the Province, citing them, in like Manner, to appear, and to admonish the Deans and Archdeacons to appear personally; and the Cathedrals, Collegiate Churches, and *inferior Clergy* of the Diocese, to send their Proctors to the Place; and at the Day appointed to certify

also to the Archbishop, the Names of all so summon'd by them.

The Place where the *Convocation* of the Province of *Canterbury* has usually been held, is *St. Paul's Church*; whence they have been prorogu'd to *St. Peter in Westminster*, in the Chappel of King *Henry VII*, or the *Jerusalem Chamber*, where there is an upper and lower House. The upper House, in the Province of *Canterbury*, consists of twenty-two Bishops, whereof the Archbishop is President; all, at the opening of a *Convocation*, in their scarlet Robes, and Hoods. The lower House consists of twenty-two Deans, fifty-four Archdeacons, twenty-four Prebendaries, and forty-four Clerks, representing the *Diocesan Clergy*.

The first Day, both Houses being assembled, the higher chuses a Bishop for their Prolocutor; and the lower, being requir'd by the higher, chuse them a Prolocutor, or Speaker; which done, they present him to the upper House, by two of the Members, whereof one makes a Speech in *Latin*; and then the elect Person makes another Speech in *Latin*; lastly, the Archbishop answers in *Latin*, and in the Name of all the Lords, approves of the Person. Both Houses debate, and transact only such Matters as his Majesty, by his Commission, expressly allows. Things are first usually propos'd in the upper House, then communicated to the lower.

In *Convocation* are debated only Matters concerning Religion and the Church, and sometimes of giving his Majesty Assistance in Money: For as the Laity can't be tax'd without their own Consent, signify'd by their Representatives in Parliament; so the *Clergy* can't be tax'd without their own Consent, signify'd by their own Representatives in *Convocation*. The *Clergy*, in *Convocation*, might antiently, without asking the King's royal Assent, and now may with the royal Assent, make Canons touching Matters of Religion, to bind, not only themselves, but all the Laity, without Consent or Ratification of the Lords and Commons in Parliament.

Till the great Rebellion, under *Charles I*, the Parliament did not at all meddle in making Canons, or in Matters doctrinal, or in Translation of Scriptures, or Annotations thereon, only by their civil Sanctions (when they were thereto requir'd) did confirm the Results and Consultations of the *Clergy*, that so the People might be easily induc'd to obey the Ordinances of their spiritual Governors.

Both Houses of *Convocation* have the same Privileges, for themselves and menial Servants, as the Members of Parliament have, and that by Statute.

The Archbishop of *York*, at the same Time, holds a *Convocation* of the *Clergy* of his Province, after the like Manner, at *York*; and by constant Correspondence does debate and conclude of the same Matters as are debated and concluded by that of *Canterbury*; not that the northern Province is oblig'd to follow what the southern one does. A Power is vested in the Archbishop to prorogue, with the Consent of his Suffragans, the lower House of *Convocation*.

The *Clergy* of *England* had antiently their Representatives in the lower House of Parliament, as appears by that antient Record much priz'd by my Lord *Coke*.

For the executive Power in Church Matters throughout the Kingdom of *England*, there have been erected divers Courts, whereof the highest for criminal Causes was the high Commission Court; for Jurisdiction whereof, it was enacted, 1 *Eliz.* that her Majesty, and Successors, should have Power, by Letters Patents, under the Great Seal, to nominate Commissioners to exercise Jurisdiction throughout the whole Realm; to visit, reform, and correct all Errors, Heresies, Schisms, Abuses, and Delinquencies, that may, by an ecclesiastical Power, be corrected and reform'd. This Court consisted of the greatest Persons in the Church and State, but the Use thereof was taken away in the long seditious Parliament, and has not been re-establish'd since.

For civil Affairs that concern the Church, the highest

highest Court is the *Court of Delegates*, for the Jurisdiction whereof it was provided, 25 *Hen. VIII.*, that it shall be lawful for any Subject of *England*, in Case of Defect of Justice, in the Courts of the Archbishop of *Canterbury*, to appeal to the King's Majesty in his Court of *Chancery*, and that upon such Appeal a Commission under the Great Seal shall be directed to certain Persons, particularly design'd for that Business; so that from the highest Court of the Archbishop of *Canterbury*, there lies an Appeal to this *Court of Delegates*, and beyond this to no other.

Next to the Court of Delegates, are the Courts of the Archbishop of *Canterbury*, where any ecclesiastical Suits between any Persons within his Province may (waiving all inferior Courts) be decided. Among them, the highest Courts are, that of *Arches*, and of *Audience*, heretofore describ'd. The next is call'd the *Prerogative Court*, which judges of Estates fallen by Will, or by Intestates; so call'd, because the Archbishop, *Jure prerogativæ suæ*, has this Power throughout his whole Province, where the Party at the Time of Death had five Pounds, or above, in several Dioceses; and these two Courts have also the Archbishop of *York*. Lastly, The *Court of Peculiars*, which deals in certain Parishes lying in several Dioceses, which Parishes are exempt from the Jurisdiction of the Bishops of those Dioceses, and are peculiarly belonging to the Archbishop of *Canterbury*, in whose Province there are fifty-seven such *Peculiars*.

Besides these Courts, serving for the whole Province, every Bishop has his Court held in the Cathedral of his Diocese, over which he has a Chancellor, term'd antiently, *Ecclesiædicus*, & *Episcopi Ecdilus*, the Church Lawyer; who being skill'd in the Civil and Canon Law, sits there as Judge; and if his Diocese be large, he has in some more remote Place a Commissary, whose Authority is only in some certain Place of the Diocese, and some certain Causes limited to him by the Bishop in his Commission, and these are call'd *Consistory Courts*.

Every Archdeacon has also his Court and Jurisdiction, where smaller Differences arising within his Limits are pleaded; also the Dean and Chapter has a Court, and take Cognizance of Causes happening in Places belonging to the Cathedral.

There are likewise certain peculiar Jurisdictions belonging to certain Parishes, the Inhabitants whereof are exempt sometimes from the Archdeacon's Jurisdiction, and sometimes from the Bishop's Jurisdiction.

Causes belonging to ecclesiastical Courts, are, Blasphemy, Apostacy from *Christianity*, Heresies, Schisms, Ordinations, Institutions of Clerks to Benefices, Celebration of divine Service, Rights of Matrimony, Divorces, general Bastardy, Tithes, Oblations, Obventions, Mortuaries, Dilapidations, Reparation of Churches, Probate of Wills, Administrations, Simony, Incests, Fornications, Adulteries, Pensions, Procurations, Commutation of Penance, &c. the Cognizance whereof belongs not to the Common Law of *England*.

It is pretended, that the Foundation of these ecclesiastical Laws are the Canons made by the General Councils, the Opinion of the antient Fathers, and the Decrees of several Bishops of *Rome*: But I'll never persuade myself that a reform'd Church would chuse for the Foundation of her ecclesiastical Government, some of the Stones of *Babylon*, to which she has given so many violent Assaults, and has endeavour'd to destroy, from its very Foundation. Therefore it is better to have Recourse to all that has been enacted, ever since the Beginning of the Reformation, under *Henry VIII.*

The Manner of Trials by these Laws and Customs are different from the Trials at Common Law, and are briefly thus: First, Goes forth a Citation, then a Bill and Answer, then by Proofs, Witnesses, and Presumptions; the Matter is argu'd *pro* and *con*, and the *Canons* and *Civil Laws* quoted, then, without any Jury, the definitive Sentence of the Judge passes, and

upon that, Execution: And this is the Manner of trying ecclesiastical and civil Causes. But ecclesiastical criminal Causes are try'd by Way of Accusation, Denunciation, or Inquisition; the first, when one takes upon him to prove the Crime: The second, when the Churchwardens present, and are not bound to prove, because it is presum'd they do it without any Malice, and that the Crime is notorious. Lastly, By Inquisition, when, by reason of common Fame, Enquiry is made by the Bishop, *ex Officio suo*, by calling some of their Neighbourhood to their Oaths, or the Party accus'd to his Oath, *ex Officio*, so call'd, because the ecclesiastical Judge does it, *ex Officio suo*, which is very antient, and was usual among the *Jews*. But this Method is obsolete, and no longer us'd.

The Punishments inflicted by these spiritual or ecclesiastical Courts, according to these spiritual or ecclesiastical Laws, proceed in this Manner. First, the Party delinquent is admonished; next goes forth *minor Excommunicatio*, whereby he is excommunicated or excluded from the Church; or if not from the Church, yet from the Communion of the Lord's Supper, is disenabled to be Plaintiff in a Law-Suit, &c. and this commonly for Stubbornness shewed, by not appearing in the ecclesiastical Court upon Summons, or not obeying the Orders of the Court. This Power of lesser Excommunication the Bishop may delegate to any Priest with the Chancellor.

Excommunicatio major, is not only an Exclusion from a Company of Christians in spiritual Duties, but also in temporal Affairs, and this commonly for Heresy, Schism, Perjury, Incest, and such grievous Crimes; and that it may be done with more Solemnity and Terror, it is to be pronounced by the Bishop himself; and being so excommunicated, a Man cannot in any civil or ecclesiastical Court be Plaintiff or Witness; and in Case any Man be so stubborn as to continue 40 Days excommunicated, the King's Writ *De Excommunicato Capiendo*, is granted forth of the Chancery against him; whereupon he is cast into Prison, without Bail, there to lie 'till he has satisfied for his Offence.

Next there is *Anathematismus* to be inflicted only upon an obstinate Heretick, whereby he is declared a publick Enemy of God, and rejected and cursed, and delivered over to eternal Damnation: And this to be done by the Bishop also, in his own Person, assisted by the Dean and Chapter, or twelve other Priests.

Lastly, there is *Interdictum*, whereby is prohibited all divine Offices, as christian Burial, Administration of Sacraments, &c. in such a Place, and to such a People; and if this be against a People, it follows them wheresoever they go; but if against a Place only, then the People of that Place may go to divine Offices elsewhere.

Besides these general Censures of the Church, with Respect to Church Communion, there is another which touches the Body of the Delinquent, called *publick Penance*, when any one is compelled to confess in publick his Fault before the whole Congregation in the Church; which is done in this Manner: The Delinquent is to stand in the Church-Porch, upon some Sunday, bare-headed, and bare-footed, in a white Sheet, and a white Rod in his Hand, begging every one that passes by to pray for him; then to enter the Church, falling down and kissing the Ground; then in the Middle of the Church, placed in a higher Place, in the Sight of all the People, and over-against the Minister, who declares his Crime odious to God, and scandalous to the Congregation, that God can no Way be satisfied, but by applying Christ's Sufferings; nor the Congregation, but by an humble Acknowledgment of his Sins, and testifying his sincere Repentance and Sorrow, &c. which being done, the Priest in Christ's Name pronounces the Remission of Sins, &c.

There remains one more Punishment, or ecclesiastical Censure, which touches the Body, and that is Denial of christian Burial, which is inflicted, not in *Pena Mortuorum*, but in *Terrorem Viventium*, who naturally desire

desire, that after their Death, their Body may be decently interred. To these forenamed Censures and Punishments both Laity and Clergy are subject; but besides these there are Punishments whereunto the Clergy are only liable; as first *Suspensio ab Officio*, when a Minister for a Time is declared unfit to execute the Office of a Minister. Then *Suspensio a Beneficio*, when a Minister for a Time is deprived of the Profits of his Benefice; and these two Censures are for small Crimes. Thirdly, *Deprivatio a Beneficio*, when for a greater Crime a Minister is wholly and for ever deprived of his Living. And Fourthly, *Deprivatio ab Officio*, when a Minister is wholly and for ever deprived of his Orders, and this is *Depositio*, or *Degradatio*, and is commonly for some heinous Crime, meriting Death, and is performed by the Bishop, in a solemn Manner, pulling off from the Criminal his Vestments, and other Ensigns of his Order; and this is in the Presence of a civil Magistrate, to whom he is then delivered to be punished as a Lay-Man for the like Offence.

All *Dissenters* from the Church of England (called by the English Clergy their *Tender-Conscience Brethren*) as *Presbyterians*, *Independents*, &c. allow of no Hierarchy, no Subordination in the Persons of their Ministers: Bishops and Priests, they maintain, in the Time of the Apostles, were the same.

In lieu of a Series of Ministers one over another, in Quality of Priests, Bishops, and Archbishops, the Polity of the *Presbyterians* in particular, consists in a Series of Assemblies or Synods: Thus every Minister is to be obedient to the Classes under which he lives, and that Class to a Synod, Provincial, Classical, or Œcumenical. The Power of Ordination with them resides in a Classes; and none are admitted to administer the Sacrament but those ordained by the Imposition of Hands of other Ministers. They make Use of Deacons to take Care of their Poor; and in the Government of the Church call in Lay-Elders.

This is now the reigning Discipline in the Church of Scotland; as it was during the Interregnum in England.

Their *Kirk* or Church is divided into Sixty-nine Presbyteries, each consisting of a Number of Parishes, not exceeding 24, nor less than 12. The Ministers of these Parishes, with one ruling Elder, chosen half-yearly, constitute what they call a Presbytery; who, meeting in their chief Town, whence the Presbytery is denominated, chuse a Moderator, or rather Prolocutor half-yearly. They determine all Appeals from *Kirk Sessions*, i. e. from the several Parochial Assemblies; but can try nothing at the first Instance cognizable before a *Kirk Session*. They compose all Differences before Ministers and People; for which End they hold presbyteral Visitations in each Parish, where they examine the Registers of the *Kirk Sessions*, &c. They inquire into Repairs of Churches, see that the Glebe, &c. suffer no Dilapidations, appoint Schools in the Parishes, and see that the Funds be not misapplied. It is they alone can exclude from the Communion, license Probations, suspend, depose, and in Effect, determine all ecclesiastical Matters within their District. From the *Presbytery*, there lies an Appeal in all Cases to the Provincial Synod.

Note, That a Consistory of the Ministers, Elders, and Deacons of a Parish, form a *Kirk Session*. These meet once a Week, the Minister being Moderator, but without a negative Voice. It regulates Matters relating to publick Worship, Elections, Catechising, Visitations, &c. It judges in Matters of less Scandal; but greater, as Adultery, are left to the Presbytery, and in all Cases an Appeal lies from it to the Presbytery.

The *INDEPENDENTS* deny not only any Subordination among the Clergy, but also all Dependency on any other Assembly. They maintain that every separate Church, or particular Congregation has in itself radically and essentially every Thing necessary for its own Government; that it has all ecclesiastical Power and

Jurisdiction; and is not at all subject to other Churches, or their Deputies, nor to their Assemblies or Synods.

Though the *Independents* do not think it necessary to assemble Synods, yet if any be held, they look on their Resolutions as weighty and prudential Councils, but not as Decisions to be peremptorily obeyed. They agree that one or more Churches may help another Church with their Advice and Assistance, and even reprove it when it offends, provided they do not pretend to any superior Authority, or Right to excommunicate, &c.

The different christian Churches spread throughout the East, have also their Clergy different, and a different Kind of ecclesiastical Government, as the *Armenians*, *Abyssinians*, *Copti*, *Jacobins*, *Maronites*, &c. All those different Churches admit, with the Church of Rome, of the Division of the Clergy into secular and regular Clergy; and there is but very little or no Difference between their ecclesiastical Hierarchy and that of the Roman Church; and almost all their regular Clergy follow the Rules of St. Basil.

The *COPHTI*, or *COPHTS*, have a Patriarch, who resides at *Cairo*, as we have observed in our Treatise of the Church, but takes his Title from *Alexandria*: He has no Archbishop under him, but eleven or twelve Bishops. The Rest of the Clergy, whether secular or regular, is composed of the Order of St. Anthony, St. Paul, and St. Macarius, who have each their Monasteries.

Besides the Order of Priests, Deacons, and Subdeacons, the *Cophts* have likewise *Archimandrites*, the Dignity whereof they confer, with all the Prayers of a strict Ordination. This makes a considerable Difference among the Priests; and besides the Rank and Authority it gives them, with Regard to the Religious, comprehends the Degrees and Functions of Arch-priests, by a Custom of 600 Years standing, if a Priest elected Bishop be not already Archimandrite, the Dignity must be conferred on him before episcopal Consecration.

The second Person among the Clergy, after the Patriarch, is the Titular Patriarch of *Jerusalem*, who also resides at *Cairo*, by reason of the few *Cophts* at *Jerusalem*; he is in Effect little more than Bishop of *Cairo*, only he goes to *Jerusalem* every *Easter*, and visits some other Places in *Palestine* near *Egypt*, which own his Jurisdiction; to him belongs the Government of the *Cophtick* Church, during the Vacancy of the Patriarchal See.

To be elected Patriarch, it is necessary the Person have lived all his Life in Contenance; and even that he be a Virgin: It is he confers the Bishopricks. To be elected Bishop, the Person must be in the Celibate; or if he has been married, it must not be above once. The Priests and inferior Ministers are allowed to be married before Ordination, but are not obliged to it, as *Ludolphus* mistakenly observes. They have an Infinity of Deacons, and even confer the Dignity frequently on Children. None but the lowest Rank among the People commences Ecclesiasticks; whence arises that excessive Ignorance found among them: Yet the Respect of the Laity towards the Clergy is very extraordinary.

The monastick Life is in great Esteem among the *Cophts*: To be admitted into it, there is required the Consent of the Bishop. The religious *Cophts* make a Vow of perpetual Chastity; renounce the World, and live with great Austerity in Desarts: They are oblig'd to sleep in their Cloaths, and in their Gird, on a Mat stretched on the Ground, and to prostrate themselves every Evening 150 Times with their Face and Breast on the Ground. They are all, both Men and Women, of the Scum of the People, and live on Alms. The Nunneries are properly Hospitals, and few enter but Widows reduced to Beggary.

The *MARONITES* have a Patriarch who resides in the Monastery of *Commubin* on Mount *Libanus*, and assumes the Title of Patriarch of *Antioch*. He is elect-

elect'd by the *Clergy* and the People, according to the antient Custom; but since their Re-union with the *Roman Catholick Church*, he is oblig'd to have a Bull of Confirmation from the Pope. He keeps a perpetual Celibate, as well as the rest of the Bishops his Suffragans; for the rest of the Ecclesiasticks, they are

allow'd to marry before Ordination; and yet the monastick Life is in great Esteem among them: Their Monks are of the Order of *St. Anthony*, and live in the most obscure Places in Mountains, far from the Commerce of the World.

CLOCK-MAKING.

CLOCK-MAKING, is the placing and ordering geometrically, within a Case, or a Frame, several dented Wheels, and other Members, of different Sizes and Proportions, in order to measure and strike the Time.

When the Wheels, &c. are of so little Compass, as to be easily disposed within the narrow Circumference of a small portative Case, so as to meet with no Opposition in their Motion, such Machine is call'd a *Watch*; and when they are larger, and require more Room, a *Clock*.

The Machine thus disposed, either in a large, or narrow Compass, is call'd *Movement*. This *Movement* is often divided into two Parts, viz. the *Watch-work*, which measures the Time; and the *Clock-work*, which strikes it; though most of the Instruments call'd *Pocket-watches* have but the watch Part; and sometimes those, also, improperly call'd *Clocks*, on Account of their larger Volume, calculated only to measure the Time.

There is no other Difference between the Watch-work of the Movement of a *Clock*, and that of the Movement of a *Pocket-Watch*, but in the Volume of the different Members they are both equally compos'd of; and the Rules to make both Movements are the same, though not the Materials; for the Movement of a *Clock* is made of Iron, and that of a *Watch* is made Part of Iron, and Part of Brass, i. e. that all the Wheels are made of Brass, and the Spindles, or Arbors, of the Wheels, the Springs, &c. made of Iron, and Steel. There is also this Difference between them, that the Movement of a *Clock* is plac'd within a Frame, compos'd of several Iron Bars, dispos'd square-wise; and that of a *Watch*, in a Case, compos'd of two round Brass Plates, supported, and join'd together, by four Brass Pillars.

The *Movement* consists (I mean for the Watch-work) of the *Balance*, the *Crown-wheel*, the *Contrat-wheel*, or *first Wheel*, the *second*, *third*, &c. the *main Spring*, with its Appurtenances, lying in the *Spring-box*, and in the Middle thereof lapping about the *Spring-arbor*, to which one End of it is fasten'd. A-top of the *Spring-arbor* is the *endless Screw*, and its Wheels; but in *Spring-Clocks* this is a *Ratchet-wheel*, with its Click, that stops it. That which the *main Spring* draws, and round which the String is wrapp'd, is commonly taper in a *Watch*, and call'd *Fusy*; and in larger Work cylindrical, and call'd *Barrel*. The small Teeth at the Bottom of the *Barrel*, or *Fusy*, which stops it in winding up, is call'd the *Ratchet*; and that which stops it when wound up, and is for that End driven up by the Spring, the *Garde-gut*. All this Work is within the Frame, or Case; between the Frame and the Dial-plate, is the *Pinion of Report*.

The *BALANCE*, is that Part, which, by its Motion, determines and regulates the *Beats*; the circular Part of it is call'd the *Rim*, and its Spindle the *Verge*, to which belong two *Palets*, or *Leaves*, or *Nuts*, which play in the Teeth of the *Crown-wheel*. Ever since the *Pendulum* has been invented, the *Balance* has been out of Date, because the *Pendulum* makes a *Clock* go with a far greater Regularity than the *Balance* did, so as not to err a single Second in several Days. The Parts of the *Pendulum* are, the *Verge*, or *Rod*, which must be plain; the *Palets*, and the *Ball*, at the Bottom.

The *CROWN WHEEL*, which drives the *Balance*, or *Pendulum*, and is plac'd a-top of all the other Wheels.

The *CONTRAT-WHEEL*, is that Wheel whose Teeth and Hoop lie contrary to those of other Wheels.

The *GREAT WHEEL*, or *FIRST WHEEL*; is that which the *Barrel* drives immediately; next to it is the *second Wheel*, next to the second, is the *third*, &c.

Note, That each Wheel is compos'd of its *Hoop*, or *Rim*, around which the Teeth are cut; of its *Radii*, or *Spokes*; and of its *Arbor*, or *Spindle*. The *Spokes*, or *Radii*, of the *Wheel*, is that Piece of Iron in Form of a Cross, which at its four Ends, or Extremities, is join'd to the Hoop of the Wheel. And the *Axis*, that Iron *Arbor*, or *Spindle*, fasten'd at one End in the Center, or Middle of the *Spokes*; and has the other introduc'd into a Hole made in the Frame for that Purpose, in which it remains loose, in order that it may perform freely its Circumvolutions. That End, thus introduc'd, is call'd *Pivot*, terminating in a Point.

The *Arbor*, or *Spindle*, of each Wheel, has its *Pinion*, i. e. several Notches, into which catch the Teeth of the next Wheel, in order to turn it round.

The *Wheels* and *Pinions* must be of several Sizes, and well proportion'd to each other. What are call'd *Teeth* in a *Wheel*, are call'd *Leaves* in the *Pinion*; but these *Teeth* and *Leaves* must be of the same Wideness, or very near the same Wideness; otherwise they could not fit so well each other; which the better to accomplish, in an arithmetical Manner, we must find first the Circumference of our *Wheel* and *Pinion*, by the Rule of Three, thus: As 7 is to 22; so is the Diameter to the Circumference; or, otherwise, as 1 is to 3,1416; so is the Diameter to the Circumference.

For Example, we have a Wheel of two Inches Diameter, and sixty Teeth, to which we would fit a *Pinion* of six *Leaves*. First, $7 : 22 :: 2 : 6,3$; we find, that the Circumference of the Wheel is 6 Inches, and 3 Tenths of an Inch. Then we say, As the Teeth of the Wheel to the Circumference of it; so are the *Leaves* of the *Pinion* to the Circumference thereof. In Numbers thus, $60 : 6,3 :: 6 : 6,3$; the *Pinion* then is 63 hundredth Parts of an Inch round.

Now to find the Diameter, it is but the Reverse of the former Rule, viz. as 22 are to 7; so is the Circumference to the Diameter. In Numbers thus, for the foregoing *Pinion*, $22 : 7 :: 6,3 : 2$; the Diameter, then, of the *Pinion*, must be 2 Tenths of an Inch, to fit the aforesaid Wheel of 2 Inches Diameter.

But, perhaps, we are unacquainted with decimal Arithmetick, and would be glad, notwithstanding, to fit our *Pinion* to our Wheel; we must therefore endeavour to do it mechanically, by drawing a Circle, and dividing it into as many Parts as we intend *Leaves* in the *Pinion* we would size; from two of the Points in the Circle we'll draw two or more Lines to the Center, to which we'll apply two of the Teeth of our Wheel, guiding them up and down, until they touch at the same Width on these Radii, or Lines: We mark, then, where this Agreement is, and draw a small Circle there, which will represent the Circumference of the *Pinion* sought after.

Having

Having taken these Measures to fit our *Pinions* to our *Wheels*, we are to calculate next the Numbers for our *Movement*.

1. We are to observe, that a Wheel divided by its Pinion, shews how many Turns the Pinion has to one Turn of the Wheel. Thus, a Wheel of 60 Teeth, driving a Pinion of 6, will turn round the Pinion 10 Times, in going round once.

2. That from the Fusy, or *Barrel*, to the *Ballance*, the Wheels drive the Pinions, and consequently the Pinions run faster, or go more Turns than the Wheels they run in; but it is the contrary from the Great Wheel to the Dial Wheel. Thus, in the last Example, the Wheel drives the Pinion 10 Times; but if the Pinion drives the Wheel, it must turn 10 Times, to drive the Wheel round once.

3. That the Wheels and Pinions are to be wrote down, either as vulgar Fractions, or in the Way of Division in common Arithmetick. For Example, a Wheel of 60 Teeth moving a Pinion of 5, may be set down, $\frac{60}{5}$, or better, 5)60; where the uppermost Figure 60, or Numerator, is the Wheel; the lowermost, or Denominator, is the Pinion: Or, in the other Example, the first Figure 5 is the Pinion, and the 60 is the Wheel. The Number of Turns which the Pinion has in one Turn of the Wheel, is set without a Hook on the right Hand; as 5)60(12, *i. e.* a Pinion 5 playing in a Wheel of 60, moves round 12 Times in one Turn of the Wheel.

Note, That a whole *Movement* may be wrote as in the adjoining Scheme; where the uppermost Number expresses the Pinion of Report 4, the Dial-wheel 36, and the Turns of the Pin 9; the second, the Pinion and Great Wheel; the third, the second Wheel, &c. the fourth, the Contrat-wheel; and the last, 17, the Crown-wheel.

Hence, 4. From the Number of Turns any Pinion makes in one Turn of the Wheel it works in, may be determin'd the Number of Turns a Wheel or Pinion has at any greater Distance, *viz.* by multiplying together the Quotients, the Product whereof is the Number of Turns.

For Example, Let us chuse the three Numbers in the Case adjoining; the first of which has 11 Turns, the next 9, and the last 8: If we multiply 11 and 9, it produces 99, for 9 Times 11 is 99; *i. e.* in one Turn of the Wheel 55, there are 99 Turns of the Pinion 5, or the Wheel 40, which runs concentrical, or on the same Arbor with the second Pinion 5; for as there are 11 Turns of the second Pinion 5, in one Turn of the great Wheel 55, or (which is the same) of the second Wheel 45, which is on the same Spindle with the Pinion 5; so there are 9 Times 11 Turns in the second Pinion 5, or Wheel 40, in one Turn of the great Wheel 55. Again, 99 multiply'd by 8, gives 792, the Number of Turns the last Pinion has in one Turn of the first Wheel 5; so that this third and last Pinion turns 792 Times, in one Turn of the first Wheel 55.

Hence we proceed to find, not only the Turns, but the Number of Beats of the Ballance in the Time of those Turns. For having found the Number of Turns the *Crown-wheel* has in one Turn of the Wheel sought, those Turns multiply'd by its Notches, give Half the Number of Beats in that one Turn of the Wheel. Suppose, for Example, the *Crown-wheel* to have 720 Turns, to one of the first Wheel; this Number multiply'd by 15, the Notches in the *Crown-wheel*, produces 10800, which are Half the Number of Strokes of the Ballance, in one Turn of the first Wheel, of 80 Teeth. The like may be done for any of the other Wheels, as the Wheel 54, or 40.

Note, That the *Ballance*, or *Swing*, has two Strokes to every Tooth of the *Crown-wheel*; for each of

the two Pallets has its Blow against each Tooth of the *Crown-wheel*: Wherefore a Pendulum that vibrates Seconds, has its *Crown-wheel* only 30 Teeth.

From this general Knowledge of Calculation, we must enter into a Detail of the particular Rules for the *Watch-work*, which are as follow:

1. It is evident, that the same Motion may be perform'd either by one Wheel, and one Pinion; or many Wheels, and many Pinions; provided the Number of Turns of all the Wheels bear the Proportion to all the Pinions, which that one Wheel bears to its Pinion; or, which is the same Thing, if the Numbers produc'd by multiplying all the Wheels together, be to the Number produc'd by multiplying all the Pinions together, as that one Wheel to that one Pinion. Thus, suppose we had Occasion for a Wheel of 1740 Teeth, (too large a Number for one Wheel, with a Pinion of 28 Leaves) we may make it into three Wheels, of 36, 8, and 5; and three Pinions, of 4, 7, and 1: For the three Wheels, 36, 8, and 5, multiply'd together, give 1440, for the Wheels; and the three Pinions, 4, 7, and 1, multiply'd together, give 28, for the Pinions. We must observe, that it matters not in what Order the Wheels and Pinions are set, or which Pinion runs in each Wheel; only, for Contrivance Sake, the biggest Numbers are commonly put to drive the rest.

2. Two Wheels and Pinions of different Numbers may perform the same Motion. Thus, a Wheel of 36, drives a Pinion of 4, the same as a Wheel of 45, a Pinion of 5; or a Wheel of 90, a Pinion of 10, the Turns of each being 9.

3. If in breaking the Train into Parcels, any of the Quotient should not be lik'd; or if any other two Numbers to be multiply'd together, are desir'd to be varied, it may be done by this Rule: We'll divide our two Numbers by any two other Numbers which will measure them, and then multiplying the Quotients by the alternate Divisors, the Product of these two last Numbers found, will be equal to the Product of the two Numbers first given. Thus, if we will vary 36 Times 8, we'll divide these by any two other Numbers, which will measure them; as 36 by 4, and 8 by 1: The fourth Part of 36 is 9, and 8 divided by 1, gives 8. We multiply 9 by 1, the Product is 9; and 8 multiply'd by 4, produces 32: So that for 36 Times 8, we'll have found 32 Times 9; so that these Numbers are equal, *viz.* 36 Times 8 is equal to 32 Times 9, both producing 288.

4. If a Wheel and Pinion fall out with cross Numbers, too big to be cut in Wheels, and yet not to be alter'd by these Rules; in seeking for the Pinion of Report, we must find out two Numbers of the same, or a near Proportion, by this following Rule, *viz.* As either of the two Numbers given, is to the other; so is 360 to a fourth: We divide that fourth Number as also 360, by 4, 5, 6, 8, 9, 10, 12, 15, (each of which Numbers exactly measures 360) or by any of those Numbers that brings a Quotient nearest an Integer, or whole Number, thus: If we had, for Example, these two Numbers, 147 the Wheel, and 170 the Pinion, which are too great to be cut in small Wheels, and yet can't be reduc'd into less, because they have no other common Measure, but Unity: We therefore say, according to the last Paragraph, As 170 is to 147; or as 147 is to 170; so is 360 to a fourth Number sought. In Numbers thus; 170 : 147 :: 360 : 311; or 147 : 170 :: 360 : 416. We divide the fourth Number and 360 by one of the foregoing Numbers, as 311, and 360, by 6; it gives 52 and 60; in dividing them by 8, we have 39 and 45; and if we divide 360 and 416 by 8, we have 45 and 52 exactly; wherefore, instead of the two Numbers, 147 and 170, we may take 52 and 60; or 39 and 45; or 45 and 52, &c.

To come to the Practice in calculating a Piece of *Watch-work*, we must pitch first on the Train, or Beats of the Ballance, in one Hour; as whether a

swift one, of about 20000 Beats, (the usual Train of a common *Pocket-Watch*) or a slower, of about 16000, (the Train of the new *Pendulum Pocket-Watches*) or any other Train. Next, we resolve on the Number of Turns the Fusy is intended to have, and the Number of Hours the Piece is to go: Suppose, *e. gr.* 12 Turns, and to go 30 Hours, or 192 Hours, *i. e.* 8 Days, &c.

These Things being all soon determin'd, we next proceed to find the Beats of the Ballance, or Pendulum, in one Turn of the Fusy, or Barrel, *viz.* As the Turns of the Fusy, to the Hour of the Watch going; so is the Train to the Number of Beats in one Turn of the Fusy. In Numbers thus; $12 : 16 :: 20000 : 26666$; which last Numbers are the Beats in one Turn of the Fusy, or great Wheel; and are equal to the Quotients of all the Wheels unto the Ballance multiply'd together. This Number, therefore, is to be broken into a convenient Parcel of Quotients, which is to be done thus: First, we halve the Number of Beats, *viz.* 26666, and we have 13333; next, we pitch upon the Number of the *Crown-wheel*, suppose 17; we divide 13333 into 17 Parts, and find, that 784 is one of them; this 784 is the Number left for the Quotients, or Turns, of the rest of the Wheels and Pinions, which being too big for one or two Quotients, may be best broken into three. Therefore we chuse three Numbers, which, when multiply'd all together continually, will come nearest 784: As suppose we take 10, 9, and 9; now 10 Times 9 is 90, and 9 Times 90 is 810, which is somewhat too much; therefore we try again other Numbers, as suppose 11, 9, and 8; these drawn one into another continually, produce 792; which is as near as can be, and convenient Quotients.

Having thus contriv'd the Piece from the great Wheel to the Ballance, but the Numbers not falling out exactly, as we first propos'd, we correct the Work thus: First, to find out the true Number of Beats in one Turn of the Fusy, we must multiply 792, afore-said, (which is the true Product of all the Quotients we have pitch'd upon) by 17, the Notches of the *Crown-wheel*, the Product of which will be 13464, which is Half the Number of the Beats in one Turn of the Fusy. Then to find the true Number of Beats in an Hour, we say, As the Hours of the Watch going, *viz.* 16, to the 12 Turns of the Fusy; so is 13464, Half the Beats in one Turn of the Fusy, to 10098, Half the Beats in one Hour; the Numbers will stand thus, $16 : 12 :: 13464 : 10098$. Then to know what Quotient is to be laid upon the Pinion of Report, we say, As the Hours of the Watch's going, *viz.* 16, to the Turns of the Fusy, *viz.* 12; so are the Hours of the Dial-plate, *viz.* 12, to the Quotient of the Pinion of Report fix'd on the great Wheel. In Numbers thus, $16 : 12 :: 12 : 9$; the Quotient of the Pinion of Report.

Having thus found our Quotients, we shall find it easy to determine what Numbers the Pinions shall have, for chusing what Numbers the Wheels shall have; and multiplying the Pinions by their Quotients, the Product is the Number for the Wheels.

Thus, the Number of the Pinion of Report is 4, and its Quotient is 9; therefore the Number for the Dial-wheel must be 4×9 , or 36: So the next Pinion being 5, its Quotient 11; therefore the great Wheel must be 5×11 , or 55; and so of the rest.

Such is the Method of calculating a 17 16 Hour Watch, which Watch may be made to go longer, by lessening the Train, and the Pinion of Report. Suppose we could conveniently slacken the Train to 16000, the Half of which is 8000; we'll say, As the halved Train, or Beats in an Hour, *viz.* 8000, to the half Beats in one Turn of the Fusy, *viz.* 13464; so are the Turns of the Fusy, *viz.* 12, to the Hours of the Watch's going: In Numbers thus, $8000 : 13464 :: 12 : 20$: So that this Watch will go 20

Hours. Then for the Pinion of Report, we say, As 20 (the Continuance) to 12; (the Turns of the Fusy) so are 12 (the Hours of the Face) to 7, the Quotient of the Pinion of Report: In Numbers thus, $20 : 12 :: 12 : 7$.

As to the Numbers, the Work is the same, only the Dial-wheel is but 28, because its Quotient is alter'd to 7, as appears in the Margin, by the Scheme of the Work.

If we would give Numbers to a Watch of about 10000 Beats in an Hour, to have 12 Turns of the Fusy to go 170 Hours, and 17 Notches in the Crown-wheel; the Work is the same, in a Manner, as in the last Example; and consequently thus: $12 : 170 :: 10000 : 141666$; which last Number is the Beats in one Turn of the Fusy; its Half, 70833, being divided by 17, gives 4167 for the Quotients: And because this Number is too big for three Quotients, we chuse four; as 10, 8, 8, 6 $\frac{2}{3}$: These multiply'd together, as before, and with 17, make 71808; which are Half the true Beats in one Turn of the Fusy. By this, we are to find our true Train first, saying, as 170 to 12, so 71808 to 5069; which last is Half the true Train of our Watch. Then for the Pinion of Report, we say, As 170 to 12, so 12 to $\frac{144}{170}$; which Fraction arises thus: If we multiply 12 by 12, it makes 144; and divide 144 by 170, we can't; but by setting the Dividend 144 over the Divisor 170, arises this Fraction $\frac{144}{170}$, which is a Wheel and Pinion; the lower is the Pinion of Report, and the upper is the Dial-wheel. But these Numbers being too big to be cut in small Wheels, they must be varied by the fourth Rule above, thus:

As $144 : 170 :: 360 : 425$;

Or $170 : 144 :: 360 : 305$;

Then dividing 360, and either of these two fourth Proportionals, (as directed by the Rule) suppose by 15, we shall have $\frac{24}{5}$, or $\frac{20}{3}$; then the Numbers of the whole Movement will stand as in the Margin. Such is the Calculation of ordinary Watches, to shew the Hour of the Day; in such as shew Minutes and Seconds, the Process is thus:

17 1. Having resolv'd upon our Beats in an Hour, we are next to find how many Beats there will be in a Minute, by dividing our design'd Train into 60 Parts; and, accordingly, finding such proper Numbers for the Crown-wheel, and Quotients, as that the Minute-wheel shall go round once in an Hour, and the Second-wheel once in a Minute.

An Example will make all plain. Let us chuse a Pendulum of 7 Inches in Length, which vibrates 142 Strokes in a Minute, and 8520 in an Hour; these Sums being halved, are 71, and 4260. Now the first Work to be done, is to break this half Number of Minutes 71, into good Proportions, which will fall as near as can be into one Quotient, and the Crown-wheel. First, the Crown-wheel must have 15 Notches, then 71 divided by 15, gives 5; so a Crown-wheel of 15, and a Wheel and Pinion whose Quotient is 5, will go round in a Minute, to carry a Hand to shew Seconds.

Next, for a Hand to go round to shew Minutes; because there are 60 Minutes in an Hour, it is but breaking 60 into Quotients, (suppose 10 and 6, or 8 and 7 $\frac{1}{2}$, &c.) and the Work is done. Thus, 4684 is broken, as near as can be, into proper Numbers.

But since it does not fall out exactly into the abovemention'd Numbers, we must correct, (as before directed) and find the true Number of Beats in an Hour, by multiplying 15 by 5, which makes 75; and 75 by 60, makes 4500, which is Half the true Train: Then finding out the Beats in one Turn of the Fusy, operate as before, *viz.* As the Number of Turns,

4)28(7

5)55(11

5)45(9

5)40(8

17

24)20($\frac{20}{3}$

6)60(10

6)48(8

5)40(8

5)33(6 $\frac{3}{4}$

17

8)40(5

15

8)64(8

8)60(7 $\frac{1}{2}$

8)40(5

15

8 2

Turns, 16, to the Continuance, 192; so is 4500 to 54000, which are Half the Beats in one Turn of the Fuse. In Numbers thus, 16 : 192 :: 450 : 54000. This 54000 must be divided by 4500, which are the true Numbers already pitch'd upon, or Beats in an

Hour; the Quotient will be 12; which not being too big for a single Quotient, need not be divided into more; the Work will stand as in the Margin. As to the Hour-hand, the Great Wheel, which performs only one Revolution in 12 Turns of the Minute-wheel, will shew the Hour; or it may be done by the Minute-wheel.

Having thus prepar'd all the different Pieces of the Watch-work, as well for a Clock, as for a Pocket-Watch, and made them ready to be put together; we must now observe how to fix our Pendulum to the Movement of our Clock, and follow, in that, the Directions of M. Huygens, by tying the Iron Rod, or Wier, which bears the Bob, or Bottom, a-top to a filken Thread, placed between two cycloidal Checks, or two little Arches of a Cycloid, made of Metal.

This is, doubtless, one of the most useful and ingenious Inventions many Ages have produc'd; by Means whereof, we have Clocks which will not err a single Second in several Days. It is true, the Pendulum is liable to its Irregularities, how minute soever they may be; and M. De la Hire thinks there is still Room to improve it: For he observes, that the silk Thread, by which it is suspended, shortens in moist Weather, and lengthens in dry; by which Means, the Length of the whole Pendulum, and consequently the Times of the Vibrations are varied. To obviate this Inconvenience, in Lieu of a silk Thread, he us'd a little fine Spring, which was not, indeed, subject to shorten, or lengthen, but which, he found, grew stiffer in cold Weather, and made its Vibrations faster than in warm. He had, therefore, Recourse to a stiff Wier, or Rod, firm from one End to the other. Indeed, by this Means, he renounc'd the Advantages of the Cycloid; but he found, as he says, by Experience, that the Vibrations in Arches of Circles are perform'd in Times as equal, provided they be not of too great Extent, as those in Cycloids. But the Experiments of Sir Jonas Moor, and others, have demonstrated the contrary.

Mr. Derham ascribes the ordinary Causes of the Irregularities of Pendulums to the Alterations in the Gravity and Temperature of the Air, which increase and diminish the Weight of the Ball, and by that Means make the Vibrations greater or less; an Accession of Weight in the Ball being found by Experiment to accelerate the Motion of the Pendulum. For, he says, that his own Clock having for some Years kept Time as well as could be expected, he hung upon its Weight an Addition of six Pounds, and found, that this Increase of Weight, although it made the Vibrations larger, yet they were quicker, and made the Clock gain about 13 Seconds every Day; even in the warmer Months, when all Pendulum Clocks are apt to go too slow, as much as in Winter they go too fast.

A general Remedy against all the Inconveniencies of Pendulums, and which is the usual Means in England, is, to make the Pendulum long, the Bob heavy, and to vibrate but a little Way; the cycloidal Checks of M. Huygens, and much approv'd by Sir John Moor, being generally over-look'd.

Another Thing to be remark'd in Pendulums, is, that the greater their Vibrations, the slower they are; for if two isochrone Pendulums moving, one the Quadrant of a Circle, the other not above 3 or 4 Degrees, this latter shall move somewhat quicker than the former; which is one Reason why small Crown-wheel Pendulums go faster in cold Weather, or when foul, than at other Times.

For the Calculation of all Pendulums, it is necessary to fix upon one, to be as a Standard to the rest; therefore we pitch upon a Pendulum to vibrate Seconds each Stroke.

M. Huygens lays down the Length of a Pendulum to swing Seconds each Stroke, to be 3 Feet, 3 Inches, and 2 Tenths of an Inch, according to Sir J. Moor's Reduction of it to English Measure.

Sir Jonas says, that the Lord Brouncker, and Mr. Rook, found the Length to be 39,25 Inches, which a little exceeds the other; and perhaps was adjusted by M. Huygens's Rule for the Center of Oscillation. For M. Mouton's Pendulum, that shall vibrate 132 Times in a Minute, it will be found likewise 8 Inches, agreeing to 39,2 Inches English. That, therefore, of 39,2 Inches, may be call'd the universal Measure, and relied on to be the near Length of a Pendulum that shall swing Seconds each Vibration.

But as the different Size of the Ball will make some Difference in the Length of this Standard Pendulum, therefore to make it an universal Measure, to fit all Places, &c. we must measure from the Point of Suspension to the Center of Oscillation, which Center is found by this Rule; As the Length of the String from the Point of Suspension to the Center of a round Ball, is to the Semidiameter of that Ball; so is that Semidiameter to a fourth Number. We must add 2 Fifths of that fourth Number to the former Length, and we shall have the Center of Oscillation, and thereby the true Length of this Standard Pendulum.

This Center of Oscillation is that Point of the Ball at which (if we imagine it divided into two Parts, by a Circle whose Center is in the Point of Suspension) the lower Part of the Ball shall be of the same Weight with the upper.

Having thus fix'd a Standard for Pendulums, we must learn, at present, how to correct their Motion. The usual Method is, to screw and let down the Ball; but a very small Alteration here having a very great Effect, M. Derham prefers Huygens's Method, which is, to have a small Weight, or Bob, to slide up and down the Rod above the Ball, which is to be immovable; though he improves on the Method, and recommends having the Ball to screw up and down, to bring the Pendulum near its Gage; and the little Bob to serve for the nicer Corrections, as the Alteration of a Second, &c.

M. Huygens orders the Weight of this little Corrector to be equal to that of the Wier, or 50 of that of the great Ball; he adds a Table of the Alterations the several Shiftings thereof will occasion the Motion of the Pendulum; wherein it is observable, that a small Alteration towards the lower End of the Pendulum, makes as great an Alteration in Time, as a greater rising or falling does when higher.

M. Derham has also calculated the following Table, to shew what Alterations the screwing up, or letting down the great Ball will cause in 24 Hours of the Clock's going.

Pendul. Length	Variation of Vibrat.	
In. Ten.	Min.	Sec.
38 0	22	33
38 1	20	38
38 2	18	43
38 3	16	48
38 4	14	55
38 5	13	2
38 6	11	9
38 7	9	16
38 8	7	25
38 9	5	32
39 0	3	42
39 1	1	51
39 2	00	00
39 3	1	50
39 4	8	40
39 5	5	29
39 6	7	19
39 7	9	7
39 8	10	57
39 9	12	42
40 0	14	29

Supposing our Pendulum that vibrates Seconds to be 39 Inches and 2 Tenths, if we should shorten it to 39 Inches, it would go 3 Minutes 42 Seconds faster than before; but if we should lengthen it to 39 Inches and 3 Tenths, it would go 1 Minute 50 Seconds slower; and so of the rest of the Table.

If then the great Ball slides on a flat Piece of Brass divided into Inches and Tenths, it will be easy to discern what Alterations will be caused by the raising or falling of it.

The Royal Pendulum, is a Name given to a Clock, whose Pendulum swings Seconds, and goes 8 Days; shewing the Hour, Minute, and Second. The Numbers of such a Piece are thus calculated; first, cast up the Seconds in 12 Hours, and you will find them to be 43200 =

$12 \times 60 \times 60$. The Swing-wheel must be 30, to swing 60 Seconds in one of its Revolutions: Now let $\frac{1}{2} 43200 = 21600$, be divided by 30, and you will have 720 in the Quotient, which must be broken into Quotients; the first of them must be 12, for the Great Wheel, which moves round once in 12 Hours. 720 divided by 12, gives 60, which may also be conveniently broken into two Quotients, as 10 and 6, or 5 and 12, or 8 and $7\frac{1}{2}$; which last is most convenient: And if you take all your Pinions 8, the Work will stand as in the Margin.

According to this Computation, the Great Wheel will go about once in 12 Hours, to shew the Hour; the second Wheel once in an Hour, to shew the Minutes; and the Swing-wheel once in a Minute, to shew the Seconds.

Spring, or *Pendulum Watches*, stand pretty much on the same Principle with *Pendulum Clocks*; whence their Denomination. If a *Pendulum*, describing little Arches of a Circle, make Vibrations of unequal Lengths in equal Times, it is by Reason it describes the greater with a greater Velocity. For the same Reason, a Spring put in Motion, and making greater or less Vibrations, as it is more or less stiff, and as it has a greater or less Degree of Motion given it, performs them nearly in equal Times. Hence, as the Vibrations of the *Pendulum* had been apply'd to large *Clocks*, to rectify the Inequality of their Motion; so to correct the unequal Motions of the Ballance of *Watches*, a *Spring* is added; by the Ischronism of whose Vibrations the Correction is to be effected. The *Spring* is usually wound into a Spiral, that in the little Compass allotted it, it may be as long as possible, and may have Strength enough not to be master'd, and dragg'd about, by the Inequality of the Ballance it is to regulate. The Vibrations of the two Parts, viz. the *Spring* and *Ballance*, should be of the same Length, only so adjusted, as that the *Spring*, being more regular in the Length of its Vibrations than the *Ballance*, may, on Occasion, communicate its Regularity thereto.

Sometimes a *Clock* or *Watch-maker* wants to convert one *Movement* into another, v. gr. to change an old *Ballance Clock* into a *Pendulum*, or make any old Work serve for the Trial of new Motions, or apply it to any such like Use; which to perform, he must observe the following Rules:

1. He must draw a Scheme of his old Work, and will see, by that Means, what Quotients he has, and what he wants. For Example, If he designs to change an old *Ballance Watch* into a *Pendulum* of 6 Inches, he must consider, that the old Work is the Great Wheel 56, the Pinion 7; the next Wheel 54, the Pinion 6; the Crown-wheel 19, &c. and that the Quotients, and Crown-wheel, and 2 Pallets, multiplied together continually, produce 2736, which are the Strokes of the *Ballance* in one Turn of the Great Wheel; and by the Quotient of the Dial-wheel, which is 12, it appears, that the Great Wheel goes round once in an Hour. Therefore he must find the Beats in an Hour of the old Work; and next find, also, the Beats in an Hour of a 6 Inches *Pendulum*, the Number whereof is 9204; which being divided by 2736, he'll have the Quotient, which he must add to the Scheme of the old Work: This Quotient $2736)9204(\frac{2}{3}$ is 3 and near $\frac{2}{3}$, as in the Margin. The Work thus alter'd, will stand as in the Margin, viz. a Pinion 6, and a Contrate-wheel 21, must be added. According to this Way, the old Work will stand as before, only the Crown-wheel must be inverted; but because the Crown-wheel is too big for the Contrate-wheel, it will be best to make both Wheels new, and increase the Number of the Contrate-wheel, by diminishing that of the Crown-wheel; which to perform, he must pitch upon some convenient Number for the Crown-wheel; multiply all the Quotients and the Number of this new Crown-wheel, as before, and divide 9204 by

it: Suppose he pitches upon 11 for the Crown-wheel; if he multiply 8, 9, and 11, the Product will be 792; which multiply'd by the 2 Pallets, makes 1584, which are the Beats in one Turn of the Great Wheel, or in an Hour. He must next divide 9204 by it, and he'll have near 6 for the Quotient of his Contrate-wheel: The Work thus order'd, will stand as follows:

4)48(12
7)56(8
6)54(9
6)36(6

11

2. But he has a Mind, perhaps, to change the former old *Watch* into a 30 Hour Piece, and to retain the old *Ballance-wheel*: In this Case, he must add a Contrate-wheel, and alter the Pinion of Report; and having chose for the Contrate-wheel such a Quotient as will best suit the rest of the Work, he multiplies all his Quotients, Crown-wheel, and 2 Pallets together, and so finds the Number of Turns in the Great Wheel, as before; then says, As the Beats in one Turn of the Great Wheel, to the Beats in an Hour, so are the Hours of the Dial, to the Quotient of the Pinion of Report. To the old Quotients 8 and 9, he may add another of 8, for the Contrate-wheel: These multiply'd, as above directed, make 21888, for the Beats in one Turn of the Great Wheel; and then for the Quotient of the Pinion of Report, he says in Numbers, thus, 21888 : 9368 :: 12 : 5. The Quotient for the Pinion of Report is something more than 5, which Overplus may be neglected, as is seen by the Scheme of the whole Work in the Margin. If it be wanted to know what Number of Turns the Fusy must have in this Work; in Numbers 'tis thus: 21888 : 9368 :: 30 : 13, almost. So that near 13 Turns will do.

3. If it be wanted, that, in altering an old *Watch*, it should shew Minutes, as well as Hours; the Beats in one Turn of the Great Wheel must be divided by the Beats in an Hour, the Quotient will shew in how many Hours the Great Wheel goes round once. If the Beats of the Great Wheel exceed the Train, the Minute-wheel must be chosen first, and multiply'd by the Quotient found, which will give the Pinion of Report. But if the Train exceeds the Beats of the Great Wheel, the Pinion of Report must be chosen first, and the Quotient being multiply'd by it, the Product is the Minute-wheel.

But it often happens, that the Train and Beats of the Great Wheel do not exactly measure one another; if so, the best Method is, to halve the two Numbers as far as they can admit of it; or divide them by some common Divisor; and so having brought them to as small Numbers as they can be brought, they may be supposed a Wheel and Pinion, and be reduc'd to lesser Numbers. Suppose, for Example, we would make the old *Movement* last mention'd a Minute *Watch*; we may reduce the Numbers of the Great Wheel 21888, and the Train 9368, to a Pinion and Wheel, 28)12; which Pinion 28 being set upon the Spindle of the Great Wheel, will drive a Wheel 12 once round in an Hour, to shew Minutes. If we make this Wheel 12 drive another of 48, concentric to which is a Pinion 12, driving a Wheel 36, concentric with a Minute-wheel, this will carry a Hand round in 12 Hours; but in this Case we must place the Pinion 28 on the Spindle of the Great Wheel, so as to slide round stily, when we turn the Minute-hand to rectify the *Watch*.

Though the most simple *Movements* are always the best, and measure the Time with a greater Regularity than those which shew the Day of the Month and Year, the Moon's Age, Tides, Motions of the Planets, &c. but as those several different Motions please a vast Number of Persons, we'll here give the necessary Rules for effecting those Motions in the *Watch-work*.

These Motions must be made to depend upon the Work

Work already in the *Movement*, or else be measur'd by the Beats of *Ballance* or *Pendulum*.

If by measuring them by the Beats of a *Ballance* or *Pendulum*, we must contrive a Piece to go a certain Time with a certain Number of Turns. But then to specify or determine the Motion intended, we can do it two Ways.

1. We must find how many Beats are in the Revolution, and dividing these Beats by the Beats in one Turn of the Wheel, or Pinion, which we design shall drive the intended Revolution; the Quotient shall be the Number to perform the same; which if too big for one, may be broken into more Quotients. Thus, if we would represent the synodical Revolution of the Moon, with a *Pendulum* that swings Seconds, the *Movement* to go 8 Days, with 16 Turns of the Fusy, and the Great Wheel to drive the Revolution. We should divide 2551500 (the Beats in 29 Days, $12\frac{1}{2}$ Hours, which is the synodical Revolution of the Moon) by 43200, (the Beats in one Turn of the Great Wheel) and we shall have 59 in the Quotient, which being too big for one, may be put into two Quotients.

The second Manner of effecting it, is, by chusing the Train, the Turns of the Fusy, Continuance, &c. and then, instead of finding a Quotient for the Pinion of Report, to find a Number to specify the Revolution, by this Rule: As the Beats in one Turn of the Great Wheel, (or any other Wheel we would have to drive the Revolution-work) is to the Train; so are the Hours of the Revolution we would perform, to the Quotient of that Revolution.

But if we would have the Revolution to be driven by the Dial-wheel, and the Work already in the *Movement*; we must know, first, the Days of the Revolution; and because the Dial-wheel commonly goes round twice in a Day, we are therefore to double the Number of Days in the Revolution, and by that Means we have the Number of Turns of the Dial-wheel in that Time; we must break this Number of Turns into a convenient Number of Quotients for the Wheels and Pinions, as we'll see in the following Examples.

To make a *Motion* which shall shew the *Day of the Month*, we must divide a Ring into 30 or 31 Days, and into as many Teeth, like a Crown-wheel Teeth, which are caught and push'd forward once in 24 Hours, by a Pin in a Wheel that goes round in that Time.

To make a *Motion* which will shew the Age of the Moon, we must observe, that the Moon finishes her Course so as to overtake the Sun, in 29 Days, and a little above an Half; these $29\frac{1}{2}$ Days (not regarding the small Excess) make 59 twelve Hours, or Turns of the Wheel, which is to be broken into convenient Quotients; which may be 5, 9 and 10; or $14\frac{1}{2}$ and 4. So that if we fix a Pinion of 10, concentric with our Dial-wheel, to drive a Wheel of 40, which Wheel 40 drives a Pinion 4; it will carry about a Ring, or Wheel of 59 Teeth, once in $29\frac{1}{2}$ Days; which Ring may be divided into $29\frac{1}{2}$ Parts, or carry an Index to point to a Circle so divided.

The following Rules are for a *Motion* which is to shew the Day of the Year, the Sun's Place in the Ecliptick, the Sun's Rising or Setting, or any other annual *Motion* of 365 Days.

The Double of 365 is 730, the Turns of the Dial-wheel in one Year, which may be broken into these Quotients, viz. $18\frac{1}{2}$, 10, and 4, according to the first Example in the Margin; or $18\frac{1}{2}$, 8, and 5, according to the second. So that a Pinion of 5 is to lead a Wheel of 20; which, again, by a Pinion of 4, leads a Wheel of 40; which, thirdly, by a Pinion of 4, carries about a Wheel, or Ring of 73, divided into the 12 Months and their Days; or into the 12 Signs, and their Degrees; or into the Sun's Rising and Setting, &c.

4)73(18 $\frac{1}{2}$	4)73(18 $\frac{1}{2}$
4)40(10	4)32(8
5)20(4	4)20(5

The *Tides* are shewn at any Part, without any other Trouble than the Moon's Ring, to move round by a fix'd Circle, divided into twice 12 Hours, and number'd the contrary Way to the Age of the Moon. To set this to go right, we must find out at what Point of the Compass the Moon makes full Sea at the Place we would have the *Watch* serve, to convert that Point into Hours, allowing for every Point North or South lost, 45 Minutes of an Hour. Thus, at *London-Bridge*, it is imagin'd to be High Tide, the Moon at N. E. and S. W. which are four Points for the North and South. Or it may be done, by learning, from the Tide-Tables, how many Hours from the Moon's Southing it is High Water: Or by finding at what Hour it is High Water at the Full or Change of the Moon. As at *London-Bridge* the Full Tide is commonly reckon'd to be 3 Hours from the Moon's Southing, or at 3 of the Clock, at the Full and Change. The Day of Conjunction, or New Moon, with a little Stud to point, being set to the Hour so found, will afterwards point to the Hour of Full Tide.

That is the usual Way of shewing the Tides; but it being always in Motion, as the Tides are not, a better Way can be found out, which is that of causing a Wheel, or Ring, to be mov'd forwards only twice a Day, and to keep Time, as near as can be, with the most correct Astronomical Tables.

We have thus far conducted our *Watch-work*, both for *Clocks* and *Pocket-watches*, and do not believe that any Thing relating to that excellent Piece of Workmanship has escap'd unobserv'd; therefore leaving it to be put into a Case, or Frame, we'll pass to the other Part, calculated to *strike the Time*, viz. the *Clock-work*.

The *CLOCK-work* consists of Wheels, and other Members, or Pieces.

The Wheels of the *Clock-work* are, 1. The *Great* or *First Wheel*, which is that the Weight or Spring first drives: In 16 or 24 Hour *Clocks*, this has usually Pins, and is call'd the *Pin-wheel*; in 8 Day Pieces, the second Wheel is commonly the *Pin-wheel*, or *Striking-wheel*. 2. Next the *Striking-wheel*, is the *Detent*, or *Hoop-wheel*, having a Hoop almost round it, wherein is a Vacancy, at which the *Clock* locks. 3. The third or fourth Wheel, according to its Distance from the first, called, also, the *Warning-wheel*. 4. The last is the *flying Pinion*, with a Fly, or Fan, to gather Air, and so bridle the Rapidity of the *Clock's* Motion. To this must be added, the *Pinion of Report*, which drives round the *Locking-wheel*, called, also, the *Count-wheel*, ordinarily with eleven Notches in it, unequally distant, to make the *Clock* strike the Hour.

The other Members, or Pieces of the *Clock-work*, are, 1. The *Rash*, or *Ratch*, which is a Kind of Wheel of twelve large Fangs, running concentric to the Dial-wheel, and serving to lift up the Detents every Hour, and to make the *Clock* strike. 2. The *Detents*, or those Stops which being lifted up, or let fall, lock and unlock the *Clock* in striking. 3. The *Hammers*, which strike the Bell. 4. The *Hammer's Tails*, by which the striking Pins draw back the Hammers. 5. The *Latches*, whereby the Work is lifted up, and unlock'd. 6. The *Lifting Pieces*, which lift up, and unlock the Detents.

In the Calculation of the striking Part of a *Clock*, (tho' it consists of many Wheels and Pinions) regard must be had only to the *Count-wheel*, *Striking-wheel*, and *Detent-wheel*, which move round in this Proportion: The *Count-wheel* commonly goes round once in 12 or 14 Hours; the *Detent-wheel* moves round every Stroke the *Clock* strikes, and sometimes but once in 2 Strokes; whence it follows,

1. That as many Pins as are in the *Pin-wheel*, so many Turns has the *Detent-wheel* in one Turn of the *Pin-wheel*; or (which is the same) the Pins of the *Pin-wheel* are the Quotient of that Wheel divided by the Pinion of the *Detent-wheel*. But if the *Detent-wheel* moves but once round in two Strokes of the *Clock*,

Clock, then the said Quotient is but Half the Number of Pins.

2. As many Turns of the *Pin-wheel* as are requir'd to perform the Strokes of 12 Hours, (which are 78) so many Turns must the *Pinion of Report* have, to turn round the *Count-wheel* once: Or thus, the Quotient of 78 divided by the Number of striking Pins, shall be the Quotient for the *Pinion of Report* and the *Count-wheel*; and this is in Case the *Pinion of Report* be fix'd to the Arbor of the *Pin-wheel*, which is commonly done. The Example in the Margin

will make all plain. Here the *Locking-wheel* is 48, the *Pinion of Report* is 8, the *Pin-wheel* is 78, the *Striking-pins* are 13, and so of the rest; observing, however, that 78 divided by the 13 Pins, gives 6, which is the Quotient of the *Pinion of Report*. As for the *Warning-wheel*, and the *flying Pinion*, it matters little what Numbers they have, their Use being only to bridle the Rapidity of the Motion of the other Wheels.

The following Rules will be of good Service in this Calculation.

1. To find how many Strokes a Clock strikes in one Turn of the *Fusy*, or *Barrel*. We must reason thus; As the Turns of the *Great Wheel*, or *Fusy*, are to the Days of the Clock's Continuance; so are the Number of Strokes in 24 Hours, viz. 156, to the Strokes of one Turn of the *Fusy*.

2. To find how many Days the Clock will go. As the Strokes in 24 Hours, are to those in one Turn of the *Fusy*; so are the Turns of the *Fusy* to the Days of the Clock's going.

3. To find the Number of Turns of the *Fusy*, or *Barrel*. As the Strokes in one Turn of the *Fusy*, are to those of 24 Hours; so is the Clock's Continuance to the Turns of the *Fusy*, or *Great Wheel*.

4. To fix the *Pin of Report* on the Spindle of the *Great Wheel*. As the Number of Strokes in the Clock's Continuance, are to the Turns of the *Fusy*; so are the Strokes in 12 Hours, viz. 78, to the Quotient of the *Pinion of Report*, fix'd on the Arbor of the *Great Wheel*.

5. To find the Strokes in the Clock's Continuance. As 12 is to 78; so are the Hours of the Clock's Continuance, to the Number of Strokes in that Time.

At present, we must reduce all these Rules to Practice, beginning with small Pieces. First, Having pitch'd upon the Number of Turns, and the Continuance of our Clock, we must find, by the last Rule, how many Strokes are in its Continuance; then if we make the *Great Wheel* the *Pin-wheel*, we'll divide these Strokes by the Number of Turns, which will give us the Number of *Striking-pins*; or we'll divide by the Number of Pins, and have the Number of Turns. Thus a Clock of 30 Hours, with 15 Turns of the *Great Wheel*, has 195 Strokes: For, by the last Rule, $12 : 78 :: 30 : 195$. Dividing 195 by 15, it gives 13 for the *Striking-pins*. Or

if we chuse 13 for our Number of Pins, and divide 195 by it, it gives 15 for the Number of Turns, as is seen in the Margin.

But suppose we would calculate the Numbers of a Clock of much longer Continuance, which would oblige us to make our *Pin-wheel* further distant from the *Great Wheel*; we are to proceed thus: Having resolv'd upon our Turns, we must find out the Number of Strokes in one Turn of the *Great Wheel*, or *Fusy*, by the first of the above describ'd six Rules. Thus, in an 8 Day Piece of 16 Turns, $16 : 8 :: 156 : 78$. So in a Piece of 32 Days, and 16 Turns, $16 : 32 :: 156 : 312$; these Strokes, so found, are the Number, which is to be broken into a convenient Parcel of Quotients, thus:

First, we must resolve upon our Number of *Striking-pins*, and divide the last nam'd Number by it; the Quotient arising from it is to be one or more Quotients, for the *Wheels* and *Pinions*. As in the last

Examples, we'll divide 78 (the Number of Strokes in one Turn of the *Fusy*) by it, (the usual Number of Pins in an 8 Day Piece) and the Quotient will be $9\frac{1}{2}$, which is a Quotient little enough. So in the Month-piece, if we take our Pins 8, we'll divide 312 (the Number of Strokes in one Turn of the *Fusy*) by it, and the Quotient will be 39; which being too big for one, must be broken into two Quotients, for *Wheels* and *Pinions*, or as near as can be; which may be 7 and 5, or 6 and $6\frac{1}{2}$; the latter is exactly 39, and may therefore stand, as appears in the following Scheme.

$$\begin{array}{r} 10)65(6\frac{1}{2} \\ 8)48(6 \\ 6)48(8 \text{ Pins.} \end{array}$$

The Quotients being thus determin'd, and, accordingly, the *Wheels* and *Pinions*, as we see; the next Work is to find a Quotient for the *Pinion of Report*, to carry on the *Count*, or *Locking-wheel*, once in 12 Hours, or as we please. If we fix our *Pinion of Report* on the Arbor of the *Great Wheel*, we must operate by our fourth Rule, as in the last Example of the Month-piece, by the sixth Rule before. The Strokes in the Continuance of the Clock's going are 4992; then, by the fourth Rule, we'll say, $4992 : 16 :: 78\frac{1}{2} : 1248$: Or thus, for a *Pinion* and *Wheel* 4992(1248; the first of which two Numbers is the *Pinion*, the next is the *Wheel*; which being too large, may be varied to $\frac{3}{5}$, or 36)9; or to $\frac{2}{3}$, or 24)6.

For the Calculation of the more usual Numbers of a Month-piece, (the preceding ones being those invented by Mr. Derham) they commonly increase the Number of *Striking-pins*, and so make the *second Wheel* the *striking Wheel*. Suppose we take 24 Pins, we'll divide 312 (the Number of Strokes in one Turn of the *Fusy*) by it, and the Quotient will be 13, which is little enough for one Quotient, and may therefore stand as we see in the Scheme.

$$\begin{array}{r} 8)104(13 \\ 6)72(12.24 \text{ Pins.} \end{array}$$

Where the Quotient of the *first Wheel* is 13; in the *second Wheel*, of 72 Teeth, are the 24 Pins, although its Quotient is but 12; because the *Hoop-wheel* is double, and goes round but once in two Strokes of the *Pin-wheel*.

The *Pinion of Report*, here, is the same with the last, if fix'd upon the Arbor of the *Great Wheel*; but if we fix it on the Arbor of the *second*, or *Pin-wheel*, its Quotient, then, must be found, by dividing 78 by 24, and the Number arising in the Quotient will be the Quotient of the *Pinion of Report*, which is $3\frac{1}{4}$. The *Pinion of Report*, then, being 12)39($3\frac{1}{4}$ 12, the *Count-wheel* will be 39, as in the Margin.

For the Calculation of a Year-piece of Clock-work, we'll chuse a Piece to go 395 Days, with 16 Turns, and 26 striking Pins. By the first of our six Rules there are 3851 Strokes in one Turn of the *Great Wheel*; for $16 : 395 :: 156 : 3851$; this last Number divided by the 26 Pins, leaves 148 in the Quotient, to be broken into two or more Quotients, for *Wheels* and *Pinions*; those Quotients may be 12 and 12, which multiply'd makes 144, which is as near as can well be to 148, without Fractions. The Work thus far contriv'd, will stand as in the Scheme.

$$\begin{array}{r} 10)120(12 \\ 8)96(12 \\ 78(26 \text{ Pins} \end{array}$$

To correct our Work, and see how near our Numbers come to what we proposed at first; and first, for the true Continuance of our Clock: If we multiply 12 by 12, and 26 (*i. e.* the Quotients of the *Striking-pins*) we shall have the true Number of Strokes in one Turn of the *Great Wheel*; which, in this Example, makes 3744; for 12 Times 12 is 144; and 26 Times that is 3744.

Having thus the true Number of Strokes desir'd, we may find the true Continuance to be only 384 Days; for $156 : 3744 :: 16384$. If this Continuance does not please us, we may come nearer to our

first proposed Number of 395 Days, by a small Increase of the Number of Turns, by making them almost $16\frac{1}{2}$; for $3744 : 156 :: 395 : 16\frac{1}{2}$, almost.

Lastly, for the *Pinion of Report*, if we fix it upon the *Great Wheel*, it will require an excessive Number; if we fix it upon the *Pin-wheel*, (which is usual) then by the fifth Rule the Quotient is 3, and the *Pinion of Report* being 13, the *Count-wheel* will be 39, as in the Margin.

But let us fix it on the Spindle of the *second Wheel*, its Quotient is 12, which multiply'd by 26, (the Pins) produces 312, which are the Strokes in one Turn of the *second Wheel*; then we'll divide 78 by 312, *i. e.* set them as a *Wheel* and *Pinion* thus, $312 \overline{)78}$, and vary them to lesser Numbers, *viz.* $36 \overline{)9}$, or to $24 \overline{)6}$, or the like, and the Work is done.

Note, That it is needless to say any Thing of *Striking-Watches*, since their Calculation is the very same.

But perhaps we want our *Clock* to strike the *Quarters*, which are generally a distinct Part from that which strikes the Hour. In this Case, the *Striking-wheel* may be the *first, second, &c. Wheel*, according to our *Clock's* Continuance; unto which *Wheel* we may fix the *Pinion of Report*. The *Locking-wheel* must be divided into 4, 8, or more unequal Parts, so as to strike the *Quarter*, and lock at the first Notch; the *Half Hour*, and lock at the second Notch, &c. and in doing this, we may make it to chime the *Quarters*, or strike them upon two Bells, or more.

It is usual for the *Pin-wheel*, or the *Locking-wheel*, to unlock the Hour Part in these *Clocks*, which is easily done by some Cog, or Latch, at the End of the last *Quarter*, to lift up the *Detents* of the Hour Part.

If we would have our *Clock* strike the *Hour* at the *Half Hour*, as well as the *whole Hour*, we must make the *Locking-wheel* of the Hour Part double, *i. e.* it must have two Notches of a Sort, to strike 1, 2, 3, 4, twice a-piece.

To calculate Numbers for *Chimes*, (a Kind of periodical Musick, produc'd at certain Hours of the Day, by a particular Apparatus added to the *Clock*;) and to fit and divide the *Chime-barrel*, it must be observ'd, that the *Barrel* must be as long in turning round, as we are in singing the Tune it is to play.

As for the *Chime-barrel*, it may be made up of certain Bars which run athwart it, with a convenient Number of Holes punch'd in them, to put in the Pins that are to draw each Hammer; by this Means, the Tune may be chang'd, without changing the *Barrel*. Such is the *Royal-Exchange Clock*, in *London*, and others. In this Case, the Pins, or Nuts, which draw the Hammers, must hang down from the Bar, some more, some less, and some standing upright in the Bar; the Reason whereof is, to play the Time of the Tune rightly: For the Distance of each of these Bars may be a Semibreve; but the usual Way is to have the Pins which draw the Hammers fixed on the *Barrel*.

For the placing of these Pins, we may proceed by the Way of Changes on Bells, *viz.* 1, 2, 3, 4, &c. or rather make Use of the musical Notes; where it must be observ'd, what is the Compass of the Tune, or how many Notes, or Bells, there are from the highest to the lowest; and, accordingly, the *Barrel* must be divided from End to End. Thus if the Tune be of 8 Notes Compass, the *Barrel* is accordingly divided into 8 Parts; these Divisions are struck round the *Barrel*, opposite to which are the Hammer-tails.

We speak here as if there was only one Hammer to each Bell, that it may be more clearly apprehended; but when two Notes of the same Sound come together in a Tune, there must be two Hammers to that Bell, to strike it: So that if in all the Tunes we intend to *chime*, of 8 Notes Compass, there should happen to be such double Notes on every Bell, instead of 8

we must have 16 Hammers; and accordingly we must divide our *Barrel*, and strike 16 Strokes round it, opposite to each Hammer-tail; then we are to divide it round about into as many Divisions as there are musical Bars, Semibreves, Minims, &c. in our Tune.

Thus the hundredth Psalm Tune has 20 Semibreves, and each Division of it is a Semibreve; the first Note of it is also a Semibreve, and therefore on the *Chime-barrel* must be a whole Division, from five to five.

Indeed, if the *Chimes* are to be compleat, we ought to have a Set of Bells to the Gamut Notes, so that each Bell having the true Sound of *Sol, la, mi, fa, &c.* we may play any Tune, with its Flats and Sharps; nay, we may, by this Means, play both the Bass and Treble with one *Barrel*; and by setting the Names of our Bells at the Head of any Tune, that Tune may easily be transferr'd to the *Chime-barrel*, without any Skill in Musick: But it must be observ'd, that each Line in the Musick is three Notes distant, that is, there is a Note between each Line, as well as upon it.

Before we conclude this Treatise of *Clock-making*, we'll set down here Numbers ready calculated for several Movements, for the Benefit of those who are unacquainted with the Art of Calculation, and for the Improvement of those who have some Tincture of it.

Numbers of an eight Day *Clock*, with 16 Turns of the *Barrel*, the *Pendulum* to vibrate Seconds, shew Minutes, Seconds, &c.

<i>The Watch-Part.</i>	<i>The Clock-Part.</i>
8)96	8)78
8)60—48)48—6(72	6)48.8 Pins
7)56	6)48
30	

In the *Watch-Part* the Wheel 60 is the Minute-wheel, placed in the Middle of the *Clock*, that its Spindle may go through the Middle of the Dial-plate, to carry the Minute-hand. Also, on this Spindle is a Wheel 48, which drives another Wheel of 48, which last has a Pinion 6, which drives round the Wheel 72 in 12 Hours. There are two Things to be observ'd here: 1. That the two Wheels 48, are of no other Use than to set the Pinion 6 at a convenient Distance from the Minute-wheel, to drive the Wheel 72, which is concentrical with the Minute-wheel. For a Pinion 6 driving a Wheel 72, would be sufficient, if the Minute-hand had two different Centers. 2. These Numbers 60—48)48—6(72, set thus, must be read thus, *viz.* the Wheel 60 has another Wheel 48 on the same Spindle, which Wheel 48 turns round another Wheel 48, which has a Pinion 6 concentrical with it; which Pinion drives a Wheel of 72. For a Line parting two Numbers, (as 60—48) denotes those two Numbers to be concentrical, or to be plac'd upon the same Spindle; and when two Numbers have a Hook between them, (as 48)48) it signifies one to run in the other.

In the *Striking-part* there are 8 Pins on the second Wheel 48; the *Count-wheel* may be fix'd to the *Great-wheel*, which goes round once in 12 Hours.

Numbers of a *Clock* of 32 Days, with 16, or 12 Turns both Parts; the *Watch* shewing Hours, Minutes, and Seconds; and the *Pendulum* vibrating Seconds.

The Watch-Part.

With 16 Turns.	With 12 Turns.
16)96	12)96
9)72	9)72
8)60—48)48—6(72	8)60—48)48—6(72
7)56	7)56
30	30

Or thus, with 16 Turns.

$$\begin{array}{r} 12)72 \\ 8)64 \\ 8)60 \\ 7)56 \\ \hline 30 \end{array}$$

The Striking Part,

with 16 Turns.

$$\begin{array}{r} 10)130 \\ 8)96 \left\{ \begin{array}{l} 24 \text{ Pins} \\ 12)39 \end{array} \right. \\ 6)72 \text{ double Hoop.} \\ 6)60 \end{array}$$

with 12 Turns.

$$\begin{array}{r} 8)128 \\ 8)104 \left\{ \begin{array}{l} 26 \text{ Pins.} \\ 8)24 \end{array} \right. \\ 8)96 \text{ double Hoop.} \\ 8)80 \end{array}$$

The Pinion of Report is fixed on the End of the Arbor of the Pin-Wheel: This Pinion in the first is 12, the Count-Wheel 39; Thus, 12)39, or it may be 8)26: In the latter (with 12 Turns) it may be 6)18, or 8)24.

Numbers of a Two-month Clock, of 64 Days, with 16 Turns; the Pendulum vibrates Seconds, and shews Minutes, Seconds, &c.

Watch-Part.	Clock-Part.
9)90	10)80
8)70	10)65
8)60—48)48—6)72	9)54 { 12 Pins.
7)56	8)52 { 8)24
<u>30</u>	5)60 double Hoop.
	5)50

Here the third Wheel is the *Pin-Wheel*, which also carries the Pinion of Report 8, driving the Count-Wheel 52.

Or Thus:

Watch-Part.	Clock-Part.
8)80	6)144
8)76	6)78 { 26 Pins.
8)60—48)48—6)72	8)24
7)56	6)72 double Hoop.
<u>30</u>	6)60

Numbers for a Clock of thirteen Weeks, with Pendulum, Turns, and Motions, as before.

Watch-Part.	Or, Thus:
8)96	6)72
8)88	6)60
8)60—48)48—6)72	6)48—48)48—6)72
7)56	6)45
<u>30</u>	<u>30</u>

Clock-Part.

Clock-Part.	Or, Thus:
8)72	5)145
8)64—37)30	6)90 { —30 Pins
8)48—12 Pins	8)24 { —24)62
6)48 double Hoop	6)72
5)40	6)60

Numbers for a Seventh-Month Clock, with Turns, Pendulum and Motions.

The Watch.	The Clock.
8)60	8)96
8)56	8)88—27)12
8)48	8)64—16 Pins
6)45—48)48—6)72	6)48 double Hoops.
5)40	6)48
<u>30</u>	

Numbers for a Year Clock of 384 Days, with Turns, Pendulum, and Motions.

The Watch.	The Clock.
12)108	10)120
9)72	8)96—36)9
8)64	6)78—26 Pins
8)60—48)48—6)72	6)72 double Hoop
7)56	6)60
<u>30</u>	

If we'll rather have the Pinion of Report on the Spindle of the Pin-wheel, it must be 13)39.

Numbers for a Clock of 30 Hours, the Pendulum about 6 Inches.

The Watch.	The Clock.
12)48	8)48
6)78	6)78—13 Pins
6)60	6)60
6)42	6)48
<u>15</u>	

Numbers for an Eight-Day Clock with 16 Turns, Pendulum about 6 Inches, to shew Minutes, Seconds, &c.

The Watch.

$$\begin{array}{r} 8)96 \\ 8)64—48)48—6)72 \\ 8)60 \\ 8)40 \\ \hline 15 \end{array}$$

The Clock may be the same with the Eight-Day Piece.

All the heretofore described Numbers are for large Pieces, but the following ones are for *Pocket-Watches*.

Numbers for a Watch to go 8 Days, with 12 Turns, to shew Minutes and Seconds, the Train 1600.

Note, That the Train of a Watch is the Number of Beats which a Watch makes in an Hour, or any other certain Time.

$$\begin{array}{r} 6)96 \\ 6)48—12)48—12)36 \\ 6)45 \\ 6)42 \\ \hline 19 \end{array}$$

On the Wheel 42 is the Second's Hand placed, and on the Wheel 48 the Minute Hand.

Numbers of another such a Watch without Minutes and Seconds, to go with only 8 Turns.

$$\begin{array}{r} 20)10 \\ \hline 6)66 \\ 6)60 \\ 5)50 \\ 5)45 \\ \hline 19 \end{array}$$

Numbers of a Pocket-Watch of 32 Hours, with 8 Turns, to shew Minutes and Seconds, Train as the last.

$$\begin{array}{r} 12)48 \\ 6)48—12)48—12)36 \\ 6)45—\text{Second's Hand.} \\ \hline 19 \end{array}$$

If this Crown-Wheel be too large, the following Numbers may be used.

$$\begin{array}{r} 12)48 \\ 6)48 \\ 6)45 \\ 6)48 \text{ Second's Hand.} \\ \hline 15 \end{array}$$

The usual Numbers of 30 Hours Pendulum Watches, with 8 Turns, to shew the Hour and Minute.

$$\begin{array}{r} 12)48 \\ 6)54-12)48-12)36 \\ 6)48 \\ 6)45 \\ \hline 15 \end{array}$$

We'll conclude this Treatise with a concise Historical Account of *Watch* or *Clock-Work*; which some Authors pretend to be a very antient Invention, and others that it is a modern one: Though they be all of Opinion that it is not so antient as the World, and that Sun-Dials were the only Instruments used by our Forefathers to measure the Time; though they are not pleased to inform us if there was such a Thing as a Sun-Dial in the Garden of *Eden*; and if *Adam*, looking at it, after he had sinned, did spy, perhaps, written on it, that excellent and witty Motto, written since, on that of that famous Structure the *Temple*, GO ABOUT YOUR BUSINESS; for in Fact that *Motto* smells a little of the Innocence and Simplicity of that first Age of the World.

For my Part I am of Opinion that our Forefathers had no other Instrument to measure Time with, than that which is yet familiar to our honest Peasants, who, living in Places where they can hear no Clock, measure their Time by their Observation of the Course of the Sun, and can more justly tell what is a Clock by looking at the Sun, or the Place of their House where it shines then, than a Person who has a *Tompion* in his Fob: Nay I have met with several of them so expert in that Art, that even, with a dark Horizon, they could tell very near the Hour of the Day.

We do not hear of any such Thing as a Sun-Dial, before that of *Abaz*, and if it was really a Sun-Dial, such as we have made since, with a Gnomon, Figures, &c. or rather such-a-one as that above-mentioned, is what we know nothing of but by Conjecture.

That there were Sun-Dials among the *Romans* is uncontestable; and *Pliny*, *Censorinus*, and *Vitruvius* assure us, that *Anaximenes Milesius* invented Dialing, and was the first that shewed a Sun-Dial at *Lacedæmon*. This *Anaximenes* was *Pythagoras's* Temporary, and flourished about the Time of the Prophet *Daniel*.

Cornelius Nasica, the Censor, invented (according to *Censorinus* and *Pliny*) *Ann. Urb.* 595, at *Rome*, the Hour-Glasses, or *Clepsydra*, which was a Vessel full of Water, having a little Hole at the Bottom, through which the Water ran to measure the Time. But however these Instruments cannot be considered as Pieces of *Watch* or *Clock-Work*.

The first Instrument Mr. *Derham* presents us with, as real Pieces of *Clock-Work*, though very different from ours, for Form and Use, are *Archimedes's* Sphere, (who lived about 200 Years before our Saviour) mentioned by *Claudian* and that of *Pofidonius* mentioned by *Cicero*.

But other Authors are not of Mr. *Derham's* Sentiment, but pretend on the contrary that the Invention of *Clocks* with Wheels is of a great deal later Date, since they refer it to *Pacificus*, Arch-Deacon of *Verona*, who lived in the Time of the King of *France* and Emperor *Lotharius*, Son of *Louis* the *Debonnair*.

Others ascribe the Invention to *Boethius* about the Year 510, others to *Regiomontanus* towards the latter End of the 14th Century.

Be this as they will, it is certain that the Art of making *Clocks*, such as are now in Use, was either first invented, or at least retrieved in *Germany* about 200 Years ago.

The most eminent, for their Furniture, among modern *Clocks*, are those of *Lauden* in *Denmark*, of *Straßbourg*, and of *Lyons* in *France*. In the Dial of that of *Lauden* are seen distinctly the Year, Month, Day of the Week, and Hour, with the Feasts, both moveable and fixed; together with the Motion of the Sun and Moon, and their Course through the Zodiac: Whenever the Clock strikes two Horsemen encounter and beat the Hour on each other; a Door opens, and there appears on a Theatre the *Virgin Mary* with *Jesus Christ* in her Arms, the *Magi*, with their Retinue, marching in Order, and presenting their Gifts, two Trumpeters sounding all the while to proclaim the Procession. In that of *Straßbourg*, a Cock claps his Wings and proclaims the Hour, the Angel opens a Door and salutes the *Virgin*, the holy Spirit descends on her, &c. In that of *Lyons* a Cock also claps his Wings, and proclaims the Hour, by crowing three Times, an Angel opens a Door and salutes the *Virgin Mary*. There is such a Clock in the Apartments at *Versailles*.

The Invention of Pendulum *Clocks* was first put in Practice by *Christian Huygens*, in 1657, and the Description thereof printed in 1658: Though several Authors, and Dr. *Becher* in particular, refer that Invention to *Galileo*. He printed a Book in 1680, entitled *De novâ Temporis dimittendi Ratione Theoria*, &c. wherein he says that Count *Magalotti*, the great Duke of *Tuscany's* Resident at the Emperor's Court, told him the whole History of those Pendulum *Clocks*, and denied M. *Huygens* to be the Author of them; also that one *Treffler*, *Clock-Maker* to the Father of the then great Duke, related to him the like History; and added, that he had made the first Pendulum Clock at *Florence*, by the Command of the great Duke, and by the Directions of his Mathematician, *Galileus a Galileo*, a Model whereof was brought into *Holland*.

The Academy *de'l Cimento* says expressly, that the Application of the Pendulum to the Movement of a Clock was first proposed by *Galileo*, and first put in Practice by his Son *Vincenzo Galilei*, in 1649.

But the Inventor, be who he will, it is certain the Invention never flourished 'till it came into *Huygen's* Hands, who insists on it, that if ever *Galileo* thought of such a Thing, he never brought it to any Degree of Perfection.

The first Pendulum Clock made in *England* was in the Year 1622, by M. *Fromentel*, a *Dutchman*, according to M. *Huygen's* Method, which prevailed for several Years; 'till afterwards Mr. *Clement* invented a new Method, whereby the Pendulum was to go with less, and to vibrate but a small Compass, which is now the universal Method of the Royal Pendulums: But Dr. *Hook* denies Mr. *Clement* to have invented this, and says that it was his Invention, and that he caused a Piece of this Nature to be made, which he shew'd before the Royal Society soon after the Fire of *London*.

There is also a Dispute between the Partisans of M. *Huygens* and those of Dr. *Hook* for the Invention of *Pocket-Watches*.

Mr. *Derham*, in his artificial *Clock-Maker*, says roundly that Dr. *Hook* was the Inventor, and that he contrived various Ways of Regulation; one Way was with a Load-stone, another with a tender spiral Spring, one End whereof played backward and forward with the Ballance, so that the Ballance was to spring as the Bob of a Pendulum, and the little Spring as the Rod thereof. A third Method was with two Ballances, of which there were divers Sorts, some having a spiral Spring to the Ballance for a Regulator, and others without. But the Way that prevailed, and which continues in Mode, was with one Ballance, and one Spring running round the upper Part of the Verge thereof. Though this has a Disadvantage, which those with two Springs were free from, in that a sudden

sudden Jerk or confused Shake will alter its Vibrations and put it in an unusual Hurry.

The Time of these Inventions was about the Year 1658, as appears among other Evidences, from an Inscription on one of the double Ballance Watches, presented to King *Charles II.* viz. *Rob. Hook, Invent.* 1658. *T. Tompion fecit,* 1675. The Invention presently got Reputation both at Home and Abroad; and two of them were sent for by the Dauphin of France.

After this *M. Huygens's* Watch, with a spiral Spring, got Abroad, and made a great Noise in England, as if the Longitude could be found by it. One of these the Lord *Bruncker* sent for out of France, where *M. Huygens* had a Patent for them. This Watch of *M. Huygens* agrees with that of *Dr. Hook*, in the Application of the Spring to the Ballance: Only *M. Huygens* had a longer spiral Spring, and the Pulses or Beats were much slower. That wherein it differs is first, The Verge has a Pinion instead of Pallets; and a contrate Wheel runs therein, and drives it round more than one Turn. 2. The Pallets are on the Arbor of the Contrate-wheel. 3. Then follows the Crown-wheel, &c. 4. The Ballance instead of turning scarce quite round, (as *Dr. Hook's*) does turn several Rounds every Vibration.

Mr. Derham says that this Watch of *M. Huygens's* is a very pretty and ingenious Contrivance, but subject to some Defects, viz. That when it stands still it will not vibrate, until it is set on vibrating: Which

though it be no Defect in a Pendulum Clock, may be one in a Pocket-watch, which is exposed to continual Jogs. That it also somewhat varies in its Vibrations, making sometimes longer, sometimes shorter Turns, and so some slower, some quicker Vibrations.

The Repetition of Watches was the Invention of *Mr. Barlow*, and first put in Practice by him in large Movements or Clocks, about the Year 1676. The Contrivance strait set the other Artists to work, who soon contrived divers Ways of effecting the same: But its Application to Pocket-watches was not known before King *James II's* Reign, when the ingenious Inventor above-mentioned, having directed *Mr. Tompion* to make a repeating Watch, endeavoured with the Lord Chief Justice *Allebone*, and some others, to get a Patent for it. The Talk of a Patent engaged *Mr. Quare* to resume the Thought of a like Contrivance which he had had in View some Years before: He now effected it, and being pressed to endeavour to prevent *Mr. Barlow's* Patent, a Watch of each Kind was produced before the King and Council; upon Trial of which the Preference was given to *Mr. Quare's*. The Difference between them was, that *Barlow's* was made to repeat by pushing in two Pieces on each Side the Watch-box; one of which repeated the Hour, and the other the Quarter: Whereas *Quare's* was made to repeat by a Pin that stuck out near the Pendant; which being thrust in (as now it is done by thrusting the Pendant itself) repeated both the Hour and Quarter with the same Thrust.

COINING.

COINING is the Art or Act of making Money, by impressing certain Marks or Figures on a Piece of Metal, either Gold, Silver, or Copper.

There are two Things requisite for *Coining*, viz. the Metals to be coined, and the Instruments they are coined with.

The Metals most commonly coined, are Gold, Silver, and Copper, though in some Countries of Europe, besides these three Metals, they coin Bullion, as in France, Holland, and the Low-Countries.

The Instruments, or rather Utensils for *Coining* are,
1. Furnaces for the melting of Metals, of which there are two Kinds, viz. those with Wind, and those with Bellows. The *Wind-Furnace* (thus called, because the Air entering through the Vent-Hole at Bottom, which is always open, serves the same Purpose as Bellows in other Furnaces) has a Bottom, a Hearth, made hollow in Manner of a Cupel, with a Vent-hole in the Fore-part thereof; over the Vent-hole is a Grate sealed in the Massive of the Furnace; and over the Grate is the Place for the Crucible. *Furnace with Bellows* consists of a flat Hearth at Bottom, into which the Air is admitted by a Hole contrived therein. On a Level with the Hearth is a second Aperture, which gives Passage to the Pipe of the Bellows, from which the Furnace is denominated. About a Foot over this is a moveable Grate, which may be taken off and put on at Pleasure. Over this is the Place where the Crucible is set, which is square, and made of the same Earth with the Crucible; of Breadth sufficient to bear a Range of Coals around the Crucible. Gold is usually melted in this Kind of Furnaces, as requiring an intenser Heat before it fuses; and Silver and Copper are commonly melted by the *Wind-Furnace*.

2. *Earthen Crucible* for the melting of Gold; and *Pots or Crucibles of Iron* for Silver or Copper.

3. *Moulds or Frames* for casting the Metals into long flat Bars.

4. *Models or Patterns*, which are flat Plates of Copper, about fifteen Inches long, and nearly of the Thickness of the Species to be struck.

5. A *Mill* to prepare the Lamine or Plates of Metal, and to give them the proper Thickness, Hard-

ness, and Consistence, before they be struck or stamped. This Machine consists of several Wheels dented like those of a Clock, &c. which moves two Cylinders of Steel, between which the Metal is passed to be brought to its proper Thickness. It was formerly turned with Water, since with Horses.

6. A *cutting Instrument* fastened to the lower Extremity of an Arbor, whose upper End is formed into a Screw, which being turned by an Iron Handle turns the Arbor, and lets the Steel, well sharpened in Form of a Punch-cutter, fall on the Plate, and thus is a Piece punched out.

7. *Files or Rasps* to bring the Pieces, by filing or rasping, to the Weight of the Standard, whereby they are to be regulated.

8. *Scales* to adjust the Pieces, and to separate those which prove too light from those which are too heavy.

9. *Two Copper Vessels*, wherein the Blanks are blanced or whitened.

10. A *Machine*, consisting of two Plates of Steel, in Form of Rulers, about the Thickness of a Line, on which the Legend or Edging is engraven, half on the one and half on the other, to mark the Edges of the Planchets, or Pieces to be stamped, to prevent the Clipping or paring of the Species.

11. The *Punchions or Dyes*, which are Pieces of good Steel of a cubick Form, wherein are engraven the Prince's Effigies, with the Arms, Legend, &c. They are also called *Matrices*, because in the Cavities or Indentures thereof the Coins seem formed or generated, as Animals are in the Matrix of their Mother.

12. A *Mill or Press*, by the French called a *Balan-cier*, whose chief Parts are a Beam, Screw, Arbor, &c. all contained in the Body of the Machine, except the first, which is a long Iron Bar, with a heavy Ball of Lead at each End, and Rings, to which are fastened Cords, which give it Motion; it is placed horizontally over the Body of the Machine. In the Middle of the Beam is fastened a Screw, which, by turning the Beam, serves to press the Arbor underneath it; to the lower Extremity of which Arbor, placed perpendicularly, is fastened the Dye or Matrice, of the Reverse

or Arms Side, in a Kind of Box, or Case, containing the Dye of the Image Side, firmly fasten'd to the lower Part of the Engine.

This Machine was invented by a *Frenchman*, call'd *Nicolas Brucher*, in 1553, and first try'd at the *Tou-ron*, the King of *France's* Palace at *Paris*, for the *coin-
ing* of Counters; before this Invention, *Coining* was perform'd by the Hammer, which could never strike the Species with that Neatness and Perfection the *Balancier*, or Mill, does.

Having thus provided ourselves with all the necessary Implements for *Coining*, (though we are very scanty of the Materials necessary to work upon) we'll begin, by mixing and melting our Metal, for the *coin-
ing* of Guineas, or *Louis d'Or*, or *Spanish Pistoles*, or what Gold Species you please, for we are as much in a Condition to do the one, as the other; we mix the Metal, because there are no Species *coin'd* of pure Gold, or Silver, but always a Quantity of Alloy of Copper is mix'd with them: The Reasons are, partly the Scarcity of those two Metals, partly the Necessity of making them harder by some foreign Mixture, and partly to defray the Expences of *Coining*.

There are two Kinds of alloying, or mixing; the first where the Gold or Silver has not been used for Money before; the other, where several Kinds of Species, or Ingots of different Standards, and Values, are to be melted down into a new Money. The proportioning of the Alloy with the fine Metal, is easy in the first Case, in the other more difficult; though M. *Boisard* has given us a ready and easy Method of doing it, by advising us to write down the several Matters to be melted, their Quality, Weight, and Fineness, in two distinct Articles; the one containing those above the Standard; the other those under it. He says, that by casting up the first, we shall have the Excess; and, by the latter, the Defect; and by comparing the two Sums, afterwards, we shall find, by Subtraction, how much Alloy must be added, to bring the several Matters to the Fineness requir'd. We have follow'd this Method, and mix'd our Metal accordingly, *i. e.* two Carats of Silver and Copper (which is the Alloy for Gold) with a Pound *Troy* of Gold, to bring our Species to the *English* Standard.

We put our Metal, thus mix'd, in an earthen Crucible, place our Crucible on a little Plate of forg'd Iron, which we have before took Care to lay over the Grate of our Bellows-Furnace; we cover our Crucible with an iron or earthen Lid, then fill the Furnace with Charcoal, and when it is well lighted, and the Crucible sufficiently hot, we stop the Vent-hole, and throwing on fresh Coals, stop the Furnace with an iron Lid, thus continuing to work the Bellows, and supply fresh Fuel till the Metal being in *Balneo*, *i. e.* entirely melted, we stir it with a Stirrer of bak'd Earth; then take our Crucible off the Fire, with a Kind of Tongs, and pour the Metal into our Moulds, which we have had the Precaution to range near the Furnace, to be in Readiness to receive it, as it comes out of the Crucible.

We take our Bars, or Plates, out of the Mould, when cold, and after we have scrap'd and brush'd them, we heat them again in a Furnace, and quench them in Water, to soften, and render them more ductile; then pass them several Times through the Mill, to flatten them further, and bring them to the just Thickness of the Species to be *coined*.

These Plates, thus reduc'd, as near as possible, to their Thickness, are cut, with our cutting Instrument, into round Pieces, call'd *Blanks*, or *Planchets*, near the Size of the intended Species; these Pieces are given to be adjusted, and brought, by filing, or rasping, to the Weight of the Standard whereby they are to be regulated, saving what remains of the Plate between the Circles of the Instrument, to be melted again.

To know if the Pieces thus prepar'd are brought at last to the Weight of the Standard, they are weigh'd in a Ballance, and those too light separated from those too heavy; those too light are melted again, and those

too heavy fil'd down: This Difference in the Weight, proceeds either from that the Mill through which the Plates have pass'd to be flatten'd, can never be so just, but there will be some Inequality, whence will arise a Difference in the *Blanks*, as from the Inequality of the Matter, some Parts being more porous than others.

When the *Blanks*, or *Planchets*, are exactly brought to the Standard, they are sent to the blanching, or whitening House, to be colour'd, which is done by heating them in a Furnace; and when taken out, and cool, boiling them successively in two Copper Vessels, with Water, common Salt, and Tartar; when they are of the Colour intended, they are taken out of the Boiler, and put in a Copper Sieve; then scour'd well with Sand, wash'd with common Water, and dry'd over a Wood Fire, in the same Copper Sieve they were put in when taken out of the Boilers.

When dry, they are sent to be edg'd, which is perform'd by Means of those two Plates of Steel in Form of Rulers, abovemention'd, one whereof is immovable, and strongly bound with Screws to a Copper Plate, and that again to a strong Board, or Table; the other is moveable, and slides on the Copper Plate, by Means of a Handle, and a Wheel or Pinion of Iron, the Teeth whereof catch in a Kind of other Teeth, on the Surface of a sliding Plate. The *Planchet*, or Piece of Plate, is plac'd horizontally between these two Plates, and by that Time it has made Half a Turn, it is found mark'd all round.

The *Planchets*, thus edg'd, are carry'd to the *Balancier*, and laid one after another on the Image Matrice, upon which two Men draw, each on his Side, one of the Ropes of the Beam, and turns the Screw fasten'd to it; which by this Motion lowers the Arbor to which the Dye of the Arms is fasten'd; by which Means, the Metal being in the Middle, at once receives an Impression on each Side, from either Dye.

Silver is *coined* in the same Manner, with these few Differences; 1. That the Alloy of Silver is Copper alone, 18 Pennyweights of which are allow'd in a Pound *Troy* for Standard Silver in *England*. 2. Silver is melted in a Wind Furnace. 3. When melted, it is taken with a Ladle out of the Crucible, to be pour'd into the Aperture of the Mould.

When the *Blanks*, either of Gold, Silver, Copper, or Bullion, have all their Marks and Impressions both on the Edges and Faces, they become Money, but have no Currency till they have been weigh'd and examin'd; for which Reason, Monsieur *Boisard* very pertinently defines Money, a Piece of Matter, to which publick Authority has affix'd a certain Value and Weight, to serve as a Medium in Commerce.

The *Era* of the Invention of Money is not easy to be determin'd; the first Tidings we hear of it is in the Time of *Abraham*, who paid 400 Shekels for a Burying-place. The *Greeks* refer the Invention of Money to *Hermodice*, Wife of King *Midas*; and the *Latins* to *Janus*. Money being a common Measure for reducing Wares to a Ballance, it was call'd by the *Greeks* *Nomisma*, not from King *Numa*, but from *Nomos*, as being establish'd by Law. By the *Latins* it was call'd *Pecunia*, either because the Wealth of those Days consisted in their Cattle; or, as *Pliny* will have it, because their first *Coin* was stamp'd with the Figure of a Cow. They also call it *Moneta*, à *monendo*, as *Suidas* observes, because when the *Romans* were in Want of Money, *Juno* admonish'd them to use Justice, and there should be no Want of Money. The Effect whereof, when they had sound, she was firnam'd *Juno moneta*, and Money was *coined* in her Temple.

Copper is that Money thought to have been first *coined*; afterwards *Silver*, and, lastly, *Gold*.

Among the antient *Britons*, Iron Rings, or, as some say, Iron Plates, were used for Money; among the *Lacedemonians*, Iron Bars quench'd with Vinegar, that they might not serve for any other Use. *Seneca* observes, that there was antiently stamp'd Money of Leather, which was also practis'd during the *Barons Wars* in *England*, and by *Frederick II*, at the Siege of *Milan*.

Milan. In 1574, the *Hollanders* coined great Quantities of *Pasteboard*, reduc'd to it by Necessity; for they had not, then, those Tuns of Gold they have reckon'd by since. *Numa Pompilius* made Money of Wood and Leather, neither does it appear that the *Romans* were much acquainted with the Art of *coining* in Metal, during the Time of their Kings. The first Silver Money they coin'd was in the Year of Rome 484, and their first Gold Money in 546.

Some Authors pretend, on the contrary, that the first Monies were of Metals, and that it was natural for Men to have Recourse to them, as being almost the only Things whose Goodness, and, as it were, Integrity, is not diminish'd by Partition, besides their Firmness, Neatness, Cleanliness, Durableness, Universality, and the Conveniencies of melting and returning them again into a Mass of any Size, or Weight. That it was this Property of Metals which first accustom'd People, who traffick'd together, to account them in lieu of Quantities of other Merchandizes in their Exchanges; and at length, to substitute them wholly in their Stead. That they would not say that in the first Ages, Money, or Coins of Metal, had any determinate Form, or Shape; that, on the contrary, they are of Opinion, that each Person could cut his Metal into what Forms and Sizes he pleas'd, according to the Quantity he thought he could give, or according to the Demand of the Seller, or the Quantity stipulated between them; that by Degrees it was found more commodious to have Pieces ready weigh'd, and as there were different Weights requir'd, according to the Value of the different Wares, all those of the same Weight began to be distinguish'd with the same Mark, or Figure; that at length the growing Commerce of Money beginning to be disturb'd by Frauds, both in the Weight and the Matter, the publick Authority interpos'd, and hence the first Stamp, or Impression, on Money; to which succeeded the Names of the Monies, and at length the Effigy of the Prince, the Date, Legend, and other Precautions, to prevent the Alterations of the Species; and that thus were Coins compleated, and a right Form given to Money, which Form has been very various, as to the Weight, Figure, Impression, and Value.

It is believ'd by several, that the *Jews* were the first who made any Impression on Money; it is true, that we find *Shekels*, in the Cabinets of Antiquaries, one Side whereof is stamp'd with the golden Pot which had the *Manna*, and the other with *Aaron's Rod*; but we do not know precisely the Time when those *Shekels* were stamp'd: Though we have all the Reason imaginable to suppose that the *Shekel* was their first Coin, which had been perpetuated among them ever since *Abraham*, and, consequently, that they were the first Nation who made Use of a regular Coin. Besides the *Shekel*, they had, in Process of Time, several other Coins, both of Gold and Silver.

The Silver Coins were, the *Gerab*, *Bekab*, *Shekel*, *Maneh*, or *Mina Hebraica*, and *Talent*. Ten *Gerabs* made a *Bekab*; twenty *Gerabs* made two *Bekabs*; and two *Bekabs* a *Shekel*: Twelve hundred *Gerabs* made an hundred and twenty *Bekabs*; an hundred and twenty *Bekabs* fifty *Shekels*; fifty *Shekels* a *Maneh*, or *Mina Hebraica*. Sixty thousand *Gerabs* made six thousand *Bekabs*; six thousand *Bekabs* made three thousand *Shekels*; three thousand *Shekels* sixty *Manehs*; and sixty *Manehs* a *Talent* of Silver.

	Sterling.
	l. s. d.
A <i>Gerab</i> was worth	00 00 1 $\frac{1}{2}$ $\frac{1}{2}$
A <i>Bekab</i>	00 01 1 $\frac{1}{2}$ $\frac{1}{2}$
A <i>Shekel</i>	00 02 3 $\frac{1}{2}$
A <i>Maneh</i>	05 14 0 $\frac{1}{4}$
A <i>Talent</i>	342 03 9

The Gold Coins among the *Hebrews*, were,

	Sterling.
	l. s. d.
The <i>Solidus Aureus</i> , or <i>Sextula</i> , worth	00 12 0 $\frac{1}{2}$
The <i>Solidus Aureus</i>	01 16 6
The <i>Talent</i> of Gold	5475 00 0

The *Dardans* stamp'd on their Money two Cocks fighting; the King of *Macedon*, a Horse; the *Athenians*, an Owl, or an Ox: Whence the Proverb, on brib'd Lawyers, *Bos in Lingua*. They of *Aegina*, a Tortoise; whence that other Proverb, *Virtutem & Sapientiam vincunt Testudines*.

The current Money of the *Greeks* were of three Sorts of Metals, viz. of Copper, Silver, and Gold. The Copper Money were the *Lepton*, *Chalcus*, *Dichalcus*, *Hemiobolium*, *Obolus*, *Diobolus*, and *Tetrobolus*. That of Silver were, the *Drachma*, *Didrachmon*, *Tetradrachmon*, *Stater*, and *Pentadrachmon*. And that of Gold, the *Stater Aureus*, *Stater Cyzicenis*, *Stater Philippicus*, *Alexandrinus*, *Daricus*, and *Cresius*.

For the Value of the Brass Money, 7 *Leptons* made a *Calchus*; 14 *Leptons* made 2 *Calchus's*; and 2 *Calchus's* a *Dichalcus*; 28 *Leptons* made 4 *Chalcus's*; 4 *Chalcus's* 2 *Dichalcus's*; and 2 *Dichalcus's* an *Hemiobolium*; 5 *Leptons* made 8 *Chalcus's*; 8 *Chalcus's* 4 *Dichalcus's*; 4 *Dichalcus's* 2 *Hemioboliums*; and 2 *Hemioboliums* an *Obolus*; 112 *Leptons* made 16 *Chalcus's*; 16 *Chalcus's* 8 *Dichalcus's*; 8 *Dichalcus's* 4 *Hemioboliums*; 4 *Hemioboliums* 2 *Obolus's*; and 2 *Obolus's* a *Diobolus*; 224 *Leptons* made 32 *Chalcus's*; 32 *Chalcus's* made 16 *Dichalcus's*; 16 *Dichalcus's* 8 *Hemioboliums*; 8 *Hemioboliums* 4 *Obolus's*; 4 *Obolus's* 2 *Dioboliums*; and 2 *Dioboliums* a *Tetrobolus*. The Copper Money went no further.

The Value of this Copper Money, in *English* Coin, is as follows:

	Sterling.
	s. d. q.
The <i>Lepton</i>	0 0 0 $\frac{3}{4}$ $\frac{1}{2}$
<i>Chalcus</i>	0 0 0 $\frac{3}{4}$ $\frac{1}{8}$
<i>Dichalcus</i>	0 0 1 $\frac{7}{8}$
<i>Hemiobolium</i>	0 0 2 $\frac{7}{8}$
<i>Obolus</i>	0 1 1 $\frac{1}{2}$
<i>Diobolus</i>	0 2 2 $\frac{1}{2}$
<i>Tetrobolus</i>	0 5 0 $\frac{2}{3}$

The Silver Money were the *Drachma*, *Didrachmon*, *Tetradrachmon*, *Stater*, and *Pentadrachmon*. The *Drachma* was worth 336 *Leptons*, 48 *Chalcus's*, 24 *Dichalcus's*, 12 *Hemioboliums*, 6 *Obolus's*, 3 *Dioboliums*, and 1 $\frac{1}{2}$ *Tetroboliums*; the *Didrachmon* was worth 662 *Leptons*, 96 *Chalcus's*, 48 *Dichalcus's*, 24 *Hemioboliums*, 12 *Obolus's*, 6 *Dioboliums*, 3 *Tetroboliums*, and 2 *Drachma's*; the *Tetradrachm Stater* was worth 1324 *Leptons*, 112 *Chalcus's*, 96 *Dichalcus's*, 48 *Hemioboliums*, 24 *Obolus's*, 12 *Dioboliums*, 6 *Tetroboliums*, 4 *Drachma's*, and 2 *Didrachmons*; the *Pentadrachmon* was worth 1660 *Leptons*, 384 *Chalcus's*, 120 *Dichalcus's*, 60 *Hemioboliums*, 30 *Obolus's*, 15 *Dioboliums*, 7 $\frac{1}{2}$ *Tetroboliums*, 5 *Drachma's*, 2 $\frac{1}{2}$ *Didrachma's*, and 1 $\frac{1}{2}$ *Tetradrachm Stater*.

	Sterling.
	s. d. q.
The <i>Drachma</i> was worth	0 7 3
<i>Didrachmon</i>	1 3 2
<i>Tetradrachm Stater</i>	2 7 0
<i>Pentadrachmon</i>	3 2 3

The *Grecian* Gold Coin was worth, in *English* Sterling, viz.

	l. s. d.
The <i>Stater Aureus</i>	0 16 1 $\frac{1}{2}$
According to our Proportion of Gold to Silver	1 00 9
The <i>Stater Cyzicenis</i> , <i>Philippicus</i> , and <i>Alexandrinus</i>	0 18 1
The <i>Stater Daricus</i> , and <i>Cresius</i>	1 12 3 $\frac{1}{2}$

Among the *Romans* the *Monetarii* sometimes impressed

pressed on the Coins the Images of Men that had been eminent in their Families; but no living Man's Head was ever stamp'd on a *Roman* Coin till after the Fall of the Commonwealth; from that Time they bore the Emperor's Head on one Side, and hence the Practice of stamping the Prince's Image on Coins has obtain'd.

The *Romans* had, likewise, Money of Copper, Silver, and of Gold. The Copper Money were the *Teruncius*, *Semilibella*, *Libella*, and *As*; sometimes *Triens*, *Sextans*, *Uncia*, *Sextula*, and *Dupondius*. The Silver Money were, the *Sesturius*, *Quinarius*, *Victoriatius*, and *Denarius*. And the Gold Coin was the *Aureus*.

In the Copper Money, 2 *Teruncius*'s made a *Semilibella*; 4 *Teruncius*'s 2 *Semilibella*'s, and 2 *Semilibella*'s a *Libella*. The *As* was the same with the *Libella*, or Pound, it had several Divisions; the principal were, the *Uncia*, or Ounce, which was the twelfth Part of the *As*; *Sextans*, the sixth Part of the *As*, or two Ounces; *Quadrans*, the fourth Part of the *As*, or three Ounces; *Triens*, the third Part of the *As*, which was four Ounces; *Quincunx*, was five Ounces; *Semis*, Half the *As*, that is, six Ounces; *Sextunx*, seven Ounces; *Bes*, two Thirds of the *As*, or eight Ounces; *Dodrans*, three Fourths of the *As*, or nine Ounces; *Dextans*, ten Ounces; and *Deunx*, eleven Ounces. In *Tullus Hostilius*'s Time, the *As* was Brass, and weigh'd actually a Pound, or twelve Ounces; but 420 Years after, the first *Punick* War having exhausted the Treasury, they reduc'd the *As* to two Ounces. In the second *Punick* War, *Hannibal* pressing hard on them, the *Asses* were further reduc'd to an Ounce a-piece. Lastly, by the *Papirian* Law, they took away Half an Ounce more, and reduc'd the *As* to a bare Half Ounce; and it is generally thought that it rested here all the Time of the Commonwealth, and even till *Vespasian*'s Reign. This last was call'd the *Papirian As*, in Regard the Law just mention'd was pass'd in the Year of *Rome* 563, by *C. Papirius Carbo*, then Tribune of the People; thus there were four different *Asses* in the Time of the Commonwealth. The figure stamp'd on the *As* was at first a Sheep, Ox, or Sow. From the Time of the Kings, a *Janus*, with two Faces on one Side, and the *Rostrium*, or Prow of a Ship on the Reverse.

These *Roman* Copper Coins were worth, in *English* Sterling, viz.

		s.	d.	q.
The <i>Teruncius</i>	————	0	0	0 $\frac{2}{3}$ $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{8}$
<i>Semilibella</i>	————	0	0	1 $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{8}$
<i>Libella</i>	————	0	0	3 $\frac{1}{4}$

The *Sestertius*, the first of the Silver Coins, was worth 10 *Teruncius*'s, or 5 *Semilibella*'s, or 2 $\frac{1}{2}$ *Libella*'s; the *Victoriatius* was worth 20 *Teruncius*'s, or 10 *Semilibella*'s, or 5 *Libella*'s, or 2 *Sestertius*'s; the *Denarius* was worth 40 *Teruncius*'s, or 20 *Semilibella*'s, or 10 *Libella*'s, or 4 *Sestertius*'s, or 2 *Victoriatius*'s, *English* Sterling; viz.

		s.	d.	q.
The <i>Sestertius</i> was worth	————	0	1	3 $\frac{1}{4}$
<i>Victoriatius</i>	————	0	3	3 $\frac{1}{4}$
<i>Denarius</i>	————	0	7	3

The <i>Aureus</i> , the sole <i>Roman</i> Gold Coin, which weigh'd generally double the <i>Denarius</i> , was worth, in <i>English</i> Sterling, according to the first Proportion of Coinage, mention'd by <i>Pliny</i>	l.	s.	d.
According to the Proportion that obtains now among us	1	04	03 $\frac{1}{4}$
According to the decuple Proportion mention'd by <i>Livy</i> and <i>Julius Pollux</i>	0	12	11
According to the Proportion mention'd by <i>Tacitus</i> , and which afterwards obtain'd, whereby the <i>Aureus</i> chang'd for 25 <i>Denarii</i> .	0	16	01 $\frac{1}{4}$

Chamberlayn, and others, say, that it was the *Ro-*

mans who brought first the Use of Gold, Silver, and Brass Coin, into *Great-Britain*, when *Julius Caesar* invaded the Island; that soon after the *Britons* imitated them, coining both Gold and Silver with the Images of their Kings stamp'd on them. When the *Romans* had subdu'd the Kings of the *Britons*, they also suppress'd their Coins, and brought in their own, which were current here from the Time of *Claudius* to that of *Valentinian the Younger*, about the Space of 500 Years. *Cambden* observes, that the most antient *English* Coin he had known, was that of *Ethelbert*, King of *Kent*, the first *Christian* King in the Island, in whose Time all Money Accounts began to pass by the Names of Pounds, Shillings, Pence, and Mancuses.

Pence seems borrow'd from the *Latin* *pecunia*, or rather from *pendo*, on Account of its just Weight; which was about three Pence of the present Money; these were coarsly stamp'd with the King's Image on one Side, and either the Mint-master's, or the City's where it was coin'd, on the other. Five of these Pence made their Scilling, probably so call'd from *Scillingus*, which the *Romans* used for the fourth Part of an Ounce. Forty of these Scillings made their Pound, and 400 of these Pounds were a Legacy, or a Portion for a King's Daughter; as appears by the Last Will of King *Alfred*. By these Names they translated all Sums of Money in their old *English* Testaments, Talents by Pounds; *Judas*'s 30 Pieces of Silver, by thirty Scillinga; Tribute-money, by *Penining*; the Mite, by *Furthling*. But it must be observ'd, that they had no other real Money but Pence only, the rest being imaginary Moneys, i. e. Names of Numbers, or Weights. Thirty of these Pence made a *Mancus*, which some take to be the same with a Mark; *Manca*, as appears by an old Manuscript, was *quinta pars unciae*. These *Manca*'s, or *Mancus*'s, were reckon'd both in Gold and Silver; for in the Year 680, we read, that *Ina*, King of the West Saxons, oblig'd the *Kentish* Men to buy their Peace at the Price of 30000 *Manca*'s of Gold. In the Notes on King *Canute*'s Laws, we find this Distinction, that *Mancusa* was as much as a Mark of Silver; and *Macna* a square Piece of Gold, valu'd at thirty Pence.

The *Danes* introduc'd a Way of reckoning Money by Ores, *per Oras*, mention'd in *Domesday-Book*; but whether they were several Coins, or a certain Sum, does not plainly appear. This, however, may be gather'd from the *Abbey-Book* of *Burton*, that 20 Ores were equivalent to 2 Marks. They had also a Gold Coin call'd *Bizantine*, or *Bezant*, as being coin'd at *Constantinople*, then call'd *Byzantium*; the Value of which Coin is not only now lost, but was so entirely forgot, even in the Time of King *Edward III*, that whereas the Bishop of *Norwich* was fin'd a *Bizantine* of Gold, to be paid the Abbot of *St. Edmond's-Bury*, for infringing his Liberties, (as it had been enacted by Parliament in the Time of the Conqueror) no Man then living could tell how much it was; so it was refer'd to the King to rate how much he should pay; which is the more unaccountable, because but an hundred Years before, two hundred thousand *Besants* were exacted by the Soldan of *Egypt* for the Ransom of *St. Louis*, King of *France*, which were then valu'd at one hundred thousand *Livres*.

Though the coining of Money be a special Prerogative of the King, yet the antient *Saxon* Princes communicated it to their Subjects; insomuch, that in every good Town there was at least one Mint, but at *London* eight, at *Canterbury* four for the King, two for the Archbishop, one for the Abbot at *Winchester*, six at *Rocheſter*, at *Hastings* two, &c.

The *Norman* Kings continu'd the same Custom of coining only Pence, with the King's Image on one Side, and on the other the Name of the City where it was coin'd, with a Cross so deeply impress'd, that it might be easily parted, and broken into two Halves, which, so broken, they call'd Half-pence; or into four Parts, which they call'd *Fourthings*, or *Farthings*.

In the Time of King *Richard I*. Money coin'd in the

the East Parts of *Germany* came in special Request in *England*, on Account of its Purity, and was call'd *Easterling Money*, as all the Inhabitants of those Parts were call'd *Easterlings*; and shortly after, some of those People skill'd in *Coining* were sent for hither, to bring the Coin to Perfection, which since has been call'd *Sterling*, for *Easterling*.

King *Edward I.*, who first adjusted the Measure of an Ell by the Length of his Arm, herein imitating *Charles the Great*, King of *France*, and Emperor, was the first, also, who establish'd a certain Standard for the Coin, which is express'd to this Effect, by *Gregory Rockley*, Mayor of *London*, and Mint-master: 'A Pound of Money contains twelve Ounces; in a Pound there ought to be eleven Ounces, two *Easterlings*, and one Farthing, the rest Alloy. The said Pound ought to weigh twenty Shillings, and three Pence, in Account and Weight. The Ounce ought to weigh twenty Pence, and a Penny twenty-four Grains and a Half. Note, that eleven Ounces two Pence *Sterling* ought to be of pure Silver, call'd *Leaf Silver*, and the Minter must add of other Weight seventeen Pence Halfpenny Farthing, if the Silver be so pure.'

The first Gold Coin was coin'd in *England*, by *Edward III.*, about the Year 1320, and that Coin call'd *Florentines*, because *Florentines* were the first Coiners thereof; the same Prince coin'd Nobles afterwards, then Rose Nobles, current at six Shillings and eight Pence; Half Nobles, call'd *Half-pennies*, at three Shillings and four Pence of Gold; and Quarters at twenty Pence, call'd *Farthings of Gold*.

In the 27th Year of his Reign, a Pound Weight of Gold of the *old Standard*, made by Tale 45 Nobles, amounting to 15 Pounds, or a proportionable Number of Half, or Quarter Nobles; and a Pound Weight of Silver of the *old Sterling*, made by Tale, 75 Groffes, or Groats, amounting to 25 Shillings; or 150 Half Groats current, at 2 Pence a-piece; or 300 Sterlings, at 1 Penny a-piece. The 30th, the like was coin'd, with only the Addition of Half Sterlings, whereof 600 were made of a Pound *Troy*.

The 37th and 46th of *Edward*, 18th of *Richard II.*, and 3d of *Henry IV.*, the Standard and Coins were the same.

The 9th Year of *Henry V.*, a Pound Weight of Gold, of the said *old Standard*, made by Tale 50 Nobles, or 100 Half Nobles, or 200 Quarter Nobles, amounting to 16 Pounds, 13 Shillings, 4 Pence, in Tale. A Pound Weight of Silver, of the *old Standard*, made by Tale 90 Groats, or Groffes; or 180 Half Groats; or 360 Sterlings, or Pennies; or 720 Mailes, or Halfpennies; or 1440 Farthings, amounting to 30 Shillings.

The first Year of *Henry VI.*, a Pound Weight of Gold, of the *old Standard*, was coin'd into 45 Rials, at 10 Shillings a-piece; or 90 Half Rials, at 5 Shillings a-piece; or 180 Rial Farthings, at 2 Shillings and 6 Pence a-piece; or 67 Angels and a Half, at 6 Shillings and 8 Pence a-piece; or 135 Angelets, at 3 Shillings and 4 Pence a-piece; and consequently the Pound *Troy* of Gold was coin'd into 22 Pounds 10 Shillings by Tale. A Pound Weight of Silver, of the *old Sterling*, was coin'd into 112 Groats and an Half, or 225 Half Groffes, or 250 Sterlings, or Pennies; or 500 Mailes, or Halfpence; or 1000 Farthings; making in Tale 37 Shillings and 6 Pence. In the fourth of his Reign the Value of the Silver, as well as of the Gold, in the Coins, was brought down; the Coins being the same with those of the 9th of *Henry V.*; the Pound Weight of Gold, of the *old Standard*, being reduc'd to 16 Pounds, 13 Shillings, and 4 Pence; and the Pound Weight of Silver, of the *old Sterling*, was reduc'd to 30 Shillings. In the 49th Year, a Pound Weight of Gold, of the said *old Sterling*, made by Tale 67 Angels and a Half, at 6s. 8d; or 135 Angelets, at 3s. 4d. a-piece; amounting to 22l. 10s; and a Pound Weight of *old Sterling* Silver, made by Tale 112 Groffes, or Groats, and a Half; amounting to 37 Shillings and 6 Pence, or propor-

tionable in the lesser Coins, being the same as in the first Year of this Reign.

In the 4th Year of *Edward IV.*, a Pound Weight of Gold, of the *old Standard*, was made 20 Pounds, 16 Shillings, and 8 Pence; and a Pound Weight of Silver, *old Sterling*, made 37s. and 6d. In the fifth Year, a Pound Weight of Gold, of the *old Standard*, made 45 Nobles, at 10 Shillings a-piece; or 90 Half Nobles, at 5 Shillings a-piece; or 180 Quarter Nobles, at 2 Shillings and 6 Pence a-piece; or 67 of the Pieces impressed with Angels, at 6 Shillings and 8 Pence a-piece, and consequently was coin'd into 22 Pounds 10 Shillings by Tale: And the Silver Money was shorn at 36 Shillings and 6 Pence the Pound Weight *Troy*, and the Coins were the same until

The first Year of *Henry VIII.*, when the Gold that was coin'd was of different Alloys, viz. the Sovereigns, Rials, Angels, George Nobles, and Half Angels, were of the *old Standard*; and a Pound Weight of the said Gold was coin'd into 27 Pounds by Tale, viz.

Into 24 Sovereigns, at 22 Shillings and 3 Pence a-piece.

Or 48 Rials, at 11 Shillings and 3 Pence a-piece.

Or 72 Angels, at 7 Shillings and 6 Pence a-piece.

Or 81 George Nobles, at 6 Shillings and 8 Pence a-piece.

Or 144 Half Angels, at 3 Shillings and 9 Pence a-piece.

Or 142 Four-penny Pieces, at 3 Shillings and 4 Pence a-piece.

And one Pound Weight of Gold, of the *new Standard*, viz. of 22 Carats pure Gold, and 2 Carats Alloy, was coin'd into 25 Pounds, 2 Shillings, and 6 Pence, by Tale, viz.

Into 100 Crowns, and a Half of the Double Rose.

Or 201 Half Crowns.

And one Pound Weight of Silver, of the *old Sterling*, was coin'd into forty-five Shillings by Tale, viz.

Into 145 Groats.

Or 270 Half Groats, or 2 Pennies.

Or 540 Sterlings, or Pennies.

Or 1080 Half-pence.

Or 2160 Farthings.

In the 34th Year, a Pound Weight of Gold, of 23 Carats fine, and 1 Carat Alloy, was coin'd into 28 Pounds, 16 Shillings, by Tale; by which Indenture was then coin'd,

Sovereigns, at 20 Shillings a-piece.

Half Sovereigns, at 10 Shillings.

Angels, at 8 Shillings.

Angelets, at 4 Shillings.

And a Pound Weight of Silver, at 10 Ounces fine, and 2 Ounces Alloy, was coin'd into 48 Shillings, viz.

Into Testoons, at 12 Pence a-piece.

Groats, at 4 Pence.

Half Groats, at 2 Pence.

Pence.

Half-pence.

Farthings.

In the 36th Year of the same King's Reign, a Pound Weight of Gold, of 22 Carats fine, and 2 Carats Alloy, was coin'd into 30 Pounds by Tale; to wit,

Into 30 Sovereigns, at 20 Shillings a-piece.

Or 60 Half Sovereigns, at 10 Shillings a-piece.

Or 120 Crowns, at 5 Shillings a-piece.

Or 140 Half Crowns, at 2 Shillings and 6 Pence a-piece; and the King had 2 Carats of fine Gold for *Coinage*, which yielded him 50 Shillings.

Silver was coin'd by the same Indenture, of 6 Ounces fine, and 6 Ounces Alloy, into 48 Shillings Tale, to wit,

Into Testoons.

Groats.

Half Groats.

Pence.

Half-pence.

Farthings.

In the 37th Year of his Reign, a Pound Weight of Gold, of 20 Carats fine, and 4 Carats Alloy, was coin'd

coin'd into 30 Pounds by the Tale, as in the last, and the King had 4 Carats, which yielded him 5 Pounds, 2 Shillings, and 6 Pence, for *Coinage*. And a Pound Weight of Silver, of 4 Ounces fine, and 8 Ounces Alloy, was *coin'd* into 40 Shillings by the Tale, which raised the Pound Weight of fine Gold to 36 Pounds, and the Pound Weight of fine Silver to 7 Pounds, 4 Shillings.

In the first Year of *Edward VI*, a Pound Weight of Gold, of 20 Carats fine, and 4 Carats Alloy, was *coin'd* into 30 Pounds by Tale; out of which the King had a great Profit.

And a Pound Weight of Silver, of 4 Ounces fine, and 8 Ounces Alloy, was *coin'd* into 48 Shillings; after which Rate, every Pound of fine Silver made it current Money 7 Pounds, 4 Shillings; and the King's Profit in every Pound Weight, was 4 Pounds, 4 Shillings. In this Year were *coin'd*, of Gold, two Sorts of Sovereigns, some went at 30 Shillings, some at 20 Shillings.

Half Sovereigns.

Crowns.

And Half Crowns.

These, with other Coins, the same of those in the preceding Year.

In the 3d Year of his Reign, a Pound Weight of Gold, of 20 Carats fine, and two Carats Alloy, was *coin'd* into 34 Pounds by Tale, to wit,

Into Sovereigns, at 20 Shillings a-piece.

Half Sovereigns, at 10 Shillings a-piece.

Crowns, at 5 Shillings a-piece.

And Half Crowns, at 2 Shillings and 6 Pence a-piece.

And a Pound Weight of Silver, of 6 Ounces fine, and 6 Ounces Alloy, was *coin'd* into 72 Shillings, which Shillings went for 12 Pence a-piece, by Tale; of which, the Merchant receiv'd, for every Pound Weight of fine Silver, 3 Pounds, 4 Shillings, and the King above 4 Pounds Gain.

In the 6th Year, a Pound Weight of Gold, of the *old Standard*, of 23 Carats, 3 Grains and a Half fine, was *coin'd* into 28 Pounds, 16 Shillings, by Tale, to wit,

Into Sovereigns, at 24 Shillings a-piece.

Half Sovereigns, at 12 Shillings a-piece.

Angels, at 8 Shillings a-piece.

Half Angels, at 4 Shillings a-piece.

In the 5th Year, a Pound Weight of Silver, of 3 Ounces fine, and 9 Ounces Alloy, was *coin'd* into 27 Shillings, at 12 Pence a-piece; and the Merchant receiv'd for every Ounce of fine Silver which he should bring into the Mint, 10 Shillings of such Money; by which Means, 12 Ounces of fine Silver was exorbitantly raised to 14 Pounds, 8 Shillings.

In the 6th Year, a Pound Weight of Gold, of the *old Standard*, was *coin'd* into 36 Pounds by Tale, to wit,

Into 24 Sovereigns, at 30 Shillings a-piece.

72 Angels, at 10 Shillings a-piece.

144 Half Angels, at 5 Shillings a-piece.

And a Pound Weight of Crown Gold, of 22 Carats fine, and 2 Carats Alloy, was *coin'd* into 33 Pounds, by Tale, to wit,

Into 33 Sovereigns.

Or 66 Half Sovereigns, at 10 Shillings a-piece.

Or 132 Crowns, at 5 Shillings a-piece.

Or 264 Half Crowns, at 2 Shillings and 6 Pence a-piece.

And a Pound Weight of Silver, consisting of 11 Ounces, and 1 Pennyweight, fine Silver, and 19 Pennyweights Alloy, was *coin'd* into 3 Pounds by Tale, to wit,

Into 12 Crowns, at 5 Shillings a-piece.

Or 24 Half Crowns, at 2 Shillings and 6 Pence a-piece.

Or 60 Shillings, at 12 Pence a-piece.

Or 120 Sixpenny Pieces.

Or 720 Penny Pieces.

Or 2880 Farthing Pieces, or Quarter-pennies.

In the first Year of *Queen Mary*, a Pound Weight of Gold, of 23 Carats, 3 Grains and a Half fine, was *coin'd* into 36 Pounds by Tale; and a Pound Weight of Silver, 11 Ounces fine, was *coin'd* into 3 Pounds by Tale.

And in the Reign of *Philip* and *Mary*, the *old Standard* for Gold and Silver was *coin'd*.

In the 2d Year of *Queen Elizabeth*, a Pound Weight of Gold, of the *old Standard*, of 23 Carats, 3 Grains and a Half fine, was *coin'd* into 36 Pounds by Tale, to wit,

Into 24 Sovereigns, at 30 Shillings a-piece.

Or 48 Rials, at 15 Shillings a-piece.

Or 72 Angels, at 10 Shillings a-piece.

Or 144 Half Angels, at 5 Shillings a-piece.

And a Pound Weight of Crown Gold, of 22 Carats fine, and 2 Carats Alloy, was *coin'd* into 33 Pounds by Tale, to wit,

Into 33 Sovereigns, at 20 Shillings a-piece.

Or 66 Half Sovereigns, at 10 Shillings a-piece.

Or 132 Crowns, at 5 Shillings a-piece.

Or 264 Half Crowns, at 2 Shillings and 6 Pence a-piece.

And a Pound Weight of *old Sterling Silver*, of 11 Ounces, 2 Pennyweights fine, and 18 Pennyweights Alloy, was *coin'd* into 3 Pounds by Tale, to wit,

Into 120 Half Shilling Pieces.

Or 180 Groats.

Or 240 Quarter Shilling Pieces.

Or 720 Penny Pieces.

Or 2880 Farthing Pieces.

In the 19th Year, a Pound Weight of Gold, of the *old Standard*, was *coin'd* into 36 Pounds by Tale, to wit,

Into 72 Angels, at 10 Shillings a-piece.

Or 144 Half Angels, at 5 Shillings a-piece.

Or 288 Quarter Angels, at 2 Shillings and 6 Pence a-piece.

And a Pound Weight of *old Sterling Silver*, into 3 Pounds by Tale, to wit,

Into 120 Half Shillings.

Or 180 Groats.

Or 140 Quarter Shilling Pieces.

Or 720 Penny Pieces.

Or 2880 Farthing Pieces.

In the 25th Year of her Reign the same.

In the 26th Year, a Pound Weight of Gold, of the *old Standard*, was *coin'd* into 36 Pounds by Tale, to wit,

Into 48 Nobles, at 15 Shillings a-piece.

Or 24 Double Nobles, at 30 Shillings a-piece.

In the 35th, a Pound Weight of Gold, of 22 Carats fine, and 2 Carats Alloy, was *coin'd* into 33 Pounds by Tale, to wit,

Into 33 Sovereigns, at 20 Shillings each.

Or 66 Half Sovereigns, at 10 Shillings each.

Or 132 Crowns, at 5 Shillings each.

Or 264 Half Crowns, at 2 Shillings and 6 Pence each.

In the 43d Year of her Reign, a Pound Weight of Gold, of the *old Standard*, was *coin'd* into 36 Pounds, 10 Shillings, by Tale, to wit,

Into 73 Angels, at 10 Shillings each.

Or 146 Half Angels, at 5 Shillings each.

Or 292 Quarter Angels, at 2 Shillings and 6 Pence each.

And the Pound Weight of Gold, of 22 Carats fine, and 2 Carats Alloy, was *coin'd* into 33 Pounds, 10 Shillings, in Tale, to wit,

Into 33 Sovereigns and a Half, at 20 Shillings a-piece.

Or 67 Half Sovereigns, at 10 Shillings.

Or 134 Crowns, at 5 Shillings.

Or 268 Half Crowns, at 2 Shillings and 6 Pence.

And one Pound Weight of Silver, of the *old Standard*, was *coin'd* into 3 Pounds, 2 Shillings, by Tale; to wit, into Crowns, Half Crowns, Shillings, Sixpences, Twopences, Pence, and Halfpence.

In the 2d Year of *James I*, a Pound Weight of fine Gold,

Gold, of 22 Carats fine, and 2 Carats Alloy, was coin'd into 37 Pounds, 4 Shillings, by Tale, viz.

Into Unites, at 20 Shillings a-piece.

Or Double Crowns, at 10 Shillings a-piece.

Or Britain Crowns, at 5 Shillings a-piece.

Or Thistle Crowns, at 4 Shillings a-piece.

Or Half Crowns, at 2 Shillings and 6 Pence.

And a Pound Weight of Silver, of the said *old Standard*, into 62 Shillings, by Tale, namely,

Into Shillings.

Sixpences.

Twopences.

Pence.

Halfpence.

Crowns.

And Half Crowns.

In the 3d Year of his Reign, a Pound Weight of Gold, of the *old Standard*, of 23 Carats, 3 Grains and a Half fine, was coin'd into 40 Pounds, 10 Shillings, by Tale, to wit,

Into Rose Rials, at 30 Shillings a-piece.

Or Spur Rials, at 15 Shillings a-piece.

And Angels, at 10 Shillings a-piece.

In the 9th Year, there was a Proclamation for raising Gold 2 Shillings in every 20 Shillings.

In the 10th Year, a Pound of Gold, of the *old Standard*, was coin'd into 44 Pounds by Tale, to wit,

Into Rose Rials.

Or Spur Rials.

Or Angels.

And a Pound Weight of Gold, of 22 Carats fine, was coin'd into 44 Pounds, 18 Shillings, and 4 Pence, by Tale, to wit,

Into Unites, at 22 Shillings a-piece.

Or Double Crowns, at 11 Shillings a-piece.

Or British Crowns, at 5 Shillings and 6 Pence.

Or Thistle Crowns, at 4 Shillings and 4 Pence $\frac{3}{4}$.

Or Half British Crowns, at 2 Shillings and 9 Pence a-piece.

In the 2d Year of Charles I, a Pound Weight of Gold, of the *old Standard*, of 23 Carats, 3 Grains and a Half fine, and Half a Grain Alloy, was coin'd into 44 Pounds, 10 Shillings, by Tale, to wit,

Into Rose Rials, at 30 Shillings a-piece.

Or Spur Rials, at 15 Shillings a-piece.

Or Angels, at 10 Shillings a-piece.

And a Pound Weight of Gold, of 22 Carats fine, and 2 Carats Alloy, was coin'd into 41 Pounds by Tale, to wit,

Into Unites, at 20 Shillings a-piece.

Double Crowns, at 10 Shillings a-piece.

British Crowns, at 5 Shillings a-piece.

And a Pound Weight of Silver, of the *old Standard*, of 11 Ounces 2 Pennyweights fine, and 18 Pennyweights Alloy, was coin'd into 62 Shillings in Tale, to wit,

Into Crowns, at 5 Shillings Value.

Half Crowns, at 2 Shillings and 6 Pence Value.

Shillings, at 12 Pence Value.

Half Shillings.

Twopences, Pence, and Halfpence.

There was a great deal of Money coin'd in the first Year of this King, both in Gold and Silver, besides the foremention'd Species, Groats, Threepences, and other various Kinds of Money, which the Distractions of the latter Part of his Reign discover'd.

There is very little of the *English* gold Coins of this King's to be met with at this Time, although it is said there were coined in his Time, one million five hundred thousand Pounds *Sterling*, by Reason the Distractions in his Reign render'd People's Properties so very uncertain, that they were glad to invest it in this Metal for Security, so that People gave 6 or 7 *per Cent.* to exchange Silver for Gold, and being thus engrossed chiefly into private Hands, was either conveyed beyond Sea, or committed to its Mother-Earth for Security, where, undoubtedly a great Part remains to this Day.

Soon after King Charles was beheaded, the Parliament then in being agreed upon a new Sort of Coin, whereof there were coined Crowns, Half-Crowns, Shillings, Six-pences, Two-pences, Pence, and Halfpence. The larger Pieces were inscribed, the COMMONWEALTH OF ENGLAND, *St. George's Cross* in a Shield, betwixt a Palm-Branch and a Laurel: Reverse, the same conjoined to another Shield, with a *Harp* for *Ireland* (vulgarly called the *Breeches*) above which XII. the Legend GOD WITH US. The Six-pences have VI. above the Shields. The lesser Pieces, viz. Twopences and Pence have no Inscriptions, only the initial Figures, and the Half-penny only the single Shield with the *Harp* on the Reverse.

There were also coined Pieces of fine Gold of the same Form and Inscription as the Silver Money xx. above the Arms; the half of it has x. the Six-pence 1651 is, strictly speaking, the first milled Money (Queen Elizabeth's being only marked on the flat Edge) and is a great Rarity as well as the Copper Farthing, with a Cross under a Garland, *England's* Farthing, Reverse for necessary Change, a *Harp*.

But soon after this, the Power being surrender'd to *Oliver Cromwel*, he took upon him the Stile of Protector; his Crown-piece, which is inimitably performed, and preserved as a choice Medal in the Cabinets of the curious, being the first milled Money that had an Inscription upon the Rim: It has his Head, *Laureat a la Romaine*, *Oliver*, D. G. R. P. ANG. SCO. HIB. &c. PRO. Reverse in a Shield crowned with the Crown of *England*, *St. George's Cross* in the first and fourth Quarters; *St. Andrew's* for *Scotland* in the second, and the *Harp* for *Ireland* in the third, and in an Escutcheon of Pretence his paternal Coat, viz. a *Lion Rampant*; Legend, PAX QUÆRITUR BELLO, 1658. Upon the Rim HAS NISI PERITURUS MIHI ADIMAT NEMO. This Piece of *Oliver's* is the more rare, there not having been so many of these coined as of the Shillings or Half-Crowns, and the Dye of the Crown having the Mischance to receive a Flaw or Crack the first Stroke, leaves a Shark upon the Money just below the Neck, by which it may be the easier distinguished from the Counterfeit: The Half-Crown is equally beautiful, though not so rare; the Shilling is likewise a very fair Piece, milled on the Edge, and very rare.

In the 22d Year of Charles II. a Pound-weight of Crown-gold of 22 Carats fine, and 2 Carats Alloy was coined into 44 Pounds 10 Shillings by Tale, to wit,

Into 10 Shilling Pieces,

or 20 Shilling Pieces,

or 40 Shilling Pieces,

or 100 Shillings or 5 Pound Pieces.

And a Pound-weight of Silver of the old Standard was coined into three Pounds two Shillings by Tale, to wit,

Into Crowns,

or Half-crowns,

or Shillings.

or Half Shillings.

or Groats,

or Half Six-pennies,

or Half-Groats,

or Pennies.

However the first Money that bore the Name of King Charles the Second was coined at *Pontefract-Castle*; round which is inscribed CAROLUS SECUNDUS, 1648. On each Side the Hand in the middle Tower is DC. Reverse a Crown with CR. DUM SPIRO, SPERO. A Crown with CAROLUS II. D. G. MAG. B. F. ET H. REX, 1648. Reverse DC. above the Castle, POST MORTEM PATRIS, PRO FILIO, but this is so exceeding rare, that the Governor's Son declared he had heard of it, but never seen any.

The Current Money of this King's was of three Sorts; the Hammered, the Milled upon the Side, and those with the Graining or Letters on the Edges.

Upon

Upon the hammered Money which was first used, he is represented with the half Face, Crown and Band, &c. CAROLUS II. D. G. MAG. BRIT. FR. ET HIB. REX. Reverse the Arms in one Shield not crown'd, with his Father's Motto, CHRISTO AUSPICE REGNO, which is used upon all this Sort of Money, from the Half-Crown (which is punched to prevent Clipping) to the Penny, which was the least Piece of Silver coined by him, or any of his Successors.

The Shilling is very fair, and is now a Curiosity: They have a Crown the Mint Mark. Of these there are two Sorts, one with XII. behind the Head, which the others want; as also the inner Circle, but is much the neatest.

The Six-pences are like the Shillings, but VI. instead of XII. the lesser Pieces from the Groat to the Penny are marked with the initial Figures IIII. III. II. I. behind the Head, except upon some of the Two-pences, which want the Figures; and upon the Penny the Stile is abbreviated to M. B. FR. ET H. but the Reverse has it every Letter, as the larger Pieces. There is another Sort which differs from the milled Money, called *Cutters*; the *Legend* whereof passes quite round the Head, which it does not in the following.

The second is like Queen *Elizabeth's* upon the broad Side only. There are Pence, Two-pences, Three-pences, and Groats: The *Legend* in these begins at the Neck, which in the former began at the Crown, and have the King's-Head crowned; the initial Figures behind the Arms, and the *Legend* as the former.

This hammer'd Money was the only current *Coin* 'till the Year 1663, when the pernicious Custom of Clipping was come to such an Height, as appears in the Books of one of the Tellers of the Exchequer, that the Weight of 120 Bags, of one hundred Pounds each, which should have weighed 46451 Ounces 10 Penny-weight, was found to weigh but 23496 Ounces 15 Penny-weight, although there were some Pieces of full Weight among them, so that the Money was reduced to about one half the Value: Therefore it being absolutely necessary to devise some new Method, for future Coinage, that was not liable to be curtailed by this pernicious Practice of Clipping, by a Warrant dated the 5th of November 1662, another dated the 8th of April 1663, and a third, dated the 24th of December 1663. Another Sort, called *Milled Money*, was first fabricated to be current in *England*.

Of this first milled Money, Anno 1662, is a very fair Crown, having a Rose under the King's-Head *Laureat*, from thence vulgarly called the *Rose-Crown*, CAROLUS II. DEI GRA. Reverse, MAG. BR. FRA. HIB. REX, 1662, the Arms of the four Kingdoms, but *France* and *England* are quarter'd together in the first and fourth Shields, each Shield is crowned, with C's, interlinked, and *St. George's Cross* radiant in the Center, and upon the Rim *Decus et Tutamen*. Another fair Crown-piece of the same Year has CAROLUS II. DEI GRATIA, without the *Rose*, in all other Respects like the former.

The other Crown-pieces are not so well struck, but have the Year mentioned upon the Rim, and bear the Arms singly in four separate Shields.

The Half-crowns are like the Crowns; one other has the Year expressed in Figures upon the Rim, Anno Regni xviii. All the milled Money has the King's-Head looking the contrary Way from the hammer'd.

The milled Shillings are neatly struck, having the C's between the four Shields crowned, with the Arms single, and inscribed as the Crown; upon some is an Elephant, upon others the Princes Feathers under the Head, a third has a Scepter, as a Guinea, stamped upon the Reverse, and a very fair Shilling in the last Year of his Reign. The Sixpence is like the Shilling. The Groat has four C's interlinked with a Rose, Thistle, Fleur de Lis and Harp in the Vacancies. The Three-pence, Two-pence, and Penny, have as many C's thereon crowned, and are of the Year 1672, 3, 4, 5, having a Crown for the Mint Mark; the Inscriptions are the same as on the larger Pieces, but want

the Crenelling upon the Edge, which the Six-pence and Shilling have.

Note, That in this Reign private Persons had the Liberty of *Coining* Pennies, Half-pennies, and Farthings, for the Convenience of Trade. This began Anno 1633. These Penny and Half-penny Pieces of Cities, Towns or Villages generally expressed the Name of the Place, and Value of the Piece on one Side, and on the other the Arms of the City or Town, or some other Device, as those of private Persons, expressed the Town or Street where they lived, their Sign and Trade. They were of different Sizes and Forms, and generally shamefully light, and continued current 'till the Year 1672, when the King's Copper Half-pence and Farthings took Place.

The five Pounds, three Pounds, and forty Shilling Pieces of Gold, CAROLUS II. DEI GRATIA, the King's-Head *Laureat*: On the Reverse the Arms of the four Kingdoms single, in the four separate Shields crowned, a Scepter in each of the Vacancies, with a Rose, Fleur-de-Lis, Thistle and Harp at the Points, and the C's interlinked in the Center, MAG. BR. FRA. ET HIB. REX, 1673. Upon the Rim, DECUS ET TUTAMEN, ANNO REGNI VICESIMO QUINTO.

This King was the first that coined Guineas and Half-Guineas, which he did in his 22d Year, and were ordained to go at the Rate of 20 Shillings the Guinea, although they never went for so little: These bore the same Impression and Inscription as the five Pound Pieces, except the Rim which was milled. A very neat Guinea in 1672 exactly resembles the five Pound Piece. A third Sort, 1674, exhibits the Head considerably larger; and a fourth Sort has an Elephant under the King's Head, being coined of the *African Gold*.

In the first Year of King *James* the second, a Pound-weight Troy of Gold 22 Carats fine, was coined into 44 Pounds 10 Shillings by Tale, *to wit*, into Guineas, Half-guineas, and larger Pieces, which are well struck, and exhibit his Majesty's Head *Laureat*, JACOBUS II. DEI GRATIA. Reverse, the Arms single, in separate Shields, with the Scepters, but nothing in the Center; some have the Elephant under the King's Head, being coined of the *African Gold*. The five Pound Piece is like the Guinea, but has DECUS, &c. upon the Rim.

And a Pound-weight of Silver of the old Standard was coined into three Pounds two Shillings by Tale; and the Silver Money, current at this Time, of this King's, are of the Years 1685, 86, 87, and 88 in *England*, and 91 in *Ireland*.

The Crown-piece has his Head in *Laureat*, JACOBUS II. DEI GRATIA. Reverse, the Arms in four separate Shields crowned, MAG. BR. FRA. HIB. REX, 1688: Upon the Rim DECUS ET TUTAMEN, &c. The Half-crowns are the same, and the Shilling and Six-pence the like, excepting the Inscription upon the Rim: The lesser Pieces, from the Groat to the Penny, have as many initial Letters of his Name crowned, as they go for Pence, but the same Inscription to a Letter as the Crown-Piece.

The Tin Farthing and Half-penny have the King's Head, JACOBUS SECUNDUS. Reverse BRITANNIA. Circumscribed BRITANNIA upon the Rim, 1685, NUMMORUM FAMULUS.

The Plantation Half-Penny of Tin has the King on Horseback, JACOB. II. D. G. MAG. BR. FRA. HIB. REX. Reverse, the Arms in four separate Shields crowned, and linked together, Val. 24. Port. Real. Hispan.

His *Irish* Half-penny was of Copper, of the like Standard of *Charles* the second by Patent, exhibiting his Head *Laureat*, inscribed JACOBUS II. DEI GRATIA. Reverse a crowned Harp, MAG. BR. FRA. ET HIB. REX, 1686. There was none of Tin in *Ireland*, or Copper in *England*.

Soon after King *James* landed in *Ireland*, which was in

In March 1688, he was reduced to so great a Scarcity of Money, that he was forced to melt old brass Guns, and Utenfils of the most refuse Metal to coin into Money for the Subsistence of his Army, which was made Current, as *sterling* Silver, by Proclamation, the 18th of June 1689; a Pound of this Metal being worth but three-pence or four-pence when coined, was five Pounds by Tale, and upon re-coining the Half-crowns as much more. Of this Sort of Money in June 1689 were coined Six-pences, and in the Month following Shillings, and in August following Half-Crowns, somewhat bigger than an *English* Half-penny; the Shilling was broader than a Farthing, but not so thick; and the Six-pence in Proportion, whereof it has been said there were coined between June 1689, and July 1690, about a Million of Pounds.

These Pieces were all alike, inscribed round the King's Head *Laureat*, JACOBUS II. DEI GRATIA. Reverse, MAG. BR. FRA. ET HIB. REX. a Crown and two Scepters, with the Year 1689 or 90, and the Value VI. XX. or XXX. above, and the Month below the Crown, which is placed between the initial Letters J. R. but there being no Circulation to bring this back into the Treasury, they were called in by Proclamation; and the Half-Crown which before was stamped with a Face, was then stamped with the Figure of the King on Horseback, and then delivered to those that brought them in as Crowns, and the smaller Pieces were melted down, and re-coined under the same Denomination though with less Metal.

This Proclamation was supposed to begin April 1690, for there is to be met with at this Time the great Half-crown, which by this Proclamation was fabricated to a Crown; and also another, which is not half so big, of the same Month; and so likewise the Shillings, for April, of both Sizes; but the large ones, after that Date, are very rarely met with. These new Crown Pieces had the King on Horseback, JAC. II. DEI GRATIA. MAG. BRI. FRA. ET HIB. REX. Reverse, a Crown the Midst of four Shields crowned. CHRISTO. VICTORE TRIUMPHO, Anno Dom. 1690. It is plainly to be discerned upon many of these Crown Pieces that they were double stamped, there appearing oftentimes upon the same Piece two Dates 1689, which was when they were coined for Half-crowns; and 1690, when they commenced Crowns.

Before King James left Ireland, even Brass and Copper failed; so that a Proclamation was preparing for the Currency of Pewter Money; but King William passing the Boyne, hindered the publishing of it; nevertheless some few were actually coined, and found in the Treasury of Dublin; the Fashion, Size, and Inscription of which were the same with the brass Crown, with this Legend added on the Rim, MELIORIS TESSERA FATI. ANNO REGNI SEXTI. These are so very rare, says an ingenious Author, there being but few coined, that he never met with any Person that saw any, but the few that fell into his Hands.

The same Year another Author conjectures there were coined Pennies of Lead, having behind the King's Head 1d. round it JACOBUS II. DEI GRATIA. Reverse, MAG. BR. FRA. ET HIB. REX. with a crowned Harp between 60 and 90; the Half-penny the same, but without the Value set upon it.

After King James left Ireland there was another Sort of Brass Money coined at Limerick, called *Hibernia's* with JACOBUS II. DEI GRATIA. Reverse, Ireland represented by a Woman with her left Hand leaning upon a Harp, and in her Right holding a Cross, HIBERNIA, 1691.

The gold Money of King William and Queen Mary's Reign was coined of Crown Gold, of 22 Carats fine, and 2 Carats Alloy, and this into Guineas, Half-guineas, and larger Pieces. The Guineas with both their Heads. Reverse, the Arms in a single Shield crowned. Those of the King alone have the four Shields crowned, Sceptres in the Vacancies, and an Orange in the Center. Those coined of African Gold have an Elephant under the Head. There are also

very fair five Pound Pieces with the same Difference.

In this Reign, the Guinea which was first ordained to go at 20 Shillings, and 10 Shillings the Half-guinea; the Guinea was current at 30 Shillings, and the Half-guinea at 15 Shillings, by Reason of the Badness of the Silver Money, which was so exceedingly counterfeited and clipped, that the common People would take Guineas almost at any Rate, rather than be troubled with the Hazard and Vexation of the Silver Money; which being considered by the King, he re-coined the Money that had been clipped, with very little Grievance to his Subjects, and at a Time of the greatest Danger and Expence. For this Purpose, besides the Mint in the Tower, where six Presses were wrought, there were other Mints erected in the most populous Towns and trading Cities, viz. York, where alone was coined 312520 Pounds Sterling; Chester, Norwich, Bristol, and Exeter, to prevent the Inconveniencies that might happen to Trade in the mean Time: And from the Year 1691 to the 14th of August 1697, there was no less than eight Millions, four hundred thousand Pounds of this clipp'd and hammered Money brought to the several Mints in London and the Country. The Pieces coined at the said Places were marked with the initial Letters of the Cities, Anno 1696, 1697, as Y for York, C for Chester, &c. In other Respects the same as the London Shilling, &c. the small Pieces having the Value expressed by Figures. There was also in the 13th Year of this Reign Half-Crowns, Shillings, and Six-pences of Sir Carbery Price, or Sir Humphrey Mackworth's Mines in Wales, with the Feathers betwixt the Shields: Likewise there were Six-pences with the Rose in the Quarters, being from the Mines in the West of England, which were coined for a Trial, Anno 1699, but would not answer, each Shilling standing the Proprietor in five Groats.

The Current Silver Money of William and Mary is from a Crown to a Penny. The Crowns and Half-crowns have both their Majesties Side-Faces looking the same Way; that of the King *Laureat*, GULIELMUS ET MARIA, DEI GRATIA. Reverse, the four Shields of Arms crowned, the Arms of Orange in the Center, the Date of the Year about it, and W. M. interlinked in the Quarters, MAG. BR. FR. ET HIB. REX, ET REGINA, with DECUS, &c. upon the Edge. Another Sort has Arms in a single Shield crowned 1689, and France is put in the last Quarter of Arms. Another the Arms of France and England quarterly in the first and fourth Quarters.

The Shillings are very neat, like the Crowns, with W. M. interlinked in the Quarters. The lesser Pieces from the Groat to the Penny are distinguished by the Figures 1, 2, 3, and 4, crowned.

The Half-pennies and Farthings have their Majesties Heads, the same as the Crowns, &c. with GULIELMUS ET MARIA. Reverse, BRITANNIA, and under it the Date.

The Tin Half-pence and Farthings, called white Half-pence and white Farthings, were the same of the Copper ones, and upon the Rim NUMMORUM FAMULUS, 1690. But this Metal being frequently counterfeited in their last Year, Half-pence and Farthings were coined again of Copper.

The Money of King William, after the Death of Queen Mary, differed in having only a single Head, GULIELMUS III. DEI GRATIA. Reverse, MAG. BR. FRA. ET HIB. REX, 1696.

The Gold Coins of Queen Anne's Reign are Guineas, Half-Guineas, and larger Pieces: And the Silver Monies are from the Crown-piece to one Penny; all which Coins exhibit her Majesty's Head, ANNA DEI GRATIA. On the reverse Side the four Shields of Arms crowned, and the Cross of St. George radiant in the Center, MAG. BRI. FR. ET HIB. REG. the Date. The Gold Money has the Sceptres added in the Quarters; and the Crowns and Half-crowns, which are of Silver, have on the Edge or Rim DECUS ET TUTAMEN, &c. The lesser Pieces, viz. the Groats, Three-pences, Two-pences, and Pennies, have the

Figures 1, 2, 3, 4 crowned, denoting their Value. Besides these, are Sixpences, Shillings, and Half Crowns, with *Vigo* under the Queen's Head, being of the Silver brought from thence.

The *Welsh* Half Crowns, Shillings, and Sixpences, of Silver, have the Prince's Device in the Quarters, between the Shields, 1704. ANNO REGNI TERTIO. And the like Pieces there are of Silver, with the Rose and Feathers, interchangeably, in the Quarters; these are call'd the *Quakers Money*, from some of that Persuasion that were Proprietors of the Mines.

The *Money* coin'd after the Union, has the Arms of *England* and *Scotland* impal'd in the first and fourth Shields, *France* in the second, and *Ireland* in the third.

There were likewise Pence and Farthings of two different Kinds, Anno 1713, and 1714, of fine Copper; but there were so very few of these coin'd, that they are preserv'd as great Rarities, (I had one Farthing, but some Body borrow'd it never to return it again;) on one Side is represented her Majesty's Head, ANNA DEI GRATIA; on the reverse Side, BRITANNIA, circumscrib'd BRITANNIA, 1713; the other 1714, has the Date under BRITANNIA.

In the Reign of King GEORGE I, that most excellent Prince, Gold and Silver Money go under the same Denominations, and are current at the same Value of those of Queen ANNE's; the Money of this King has his Majesty's Head *Laureat*, GEORGIUS. D. G. MAG. BR. FR. ET. HIB. REX. F. D. Reverse, BRUN. ET. L. DUX. S. R. I. A. TH. ET. EL. the four Shields of Arms crown'd, and the Cross of St. George radiant in the Center. The Arms of *England* and *Scotland* are quarter'd together in the first Shield, *France* in the second, the Arms of *Brunswick*, &c. in the third, and of *Ireland* in the fourth.

The *Welsh*, *Quakers*, and *Scotch* Shillings, with an E. under the Head, being coin'd at *Edinburgh*, have the same Marks on the late King's, as well as on his PRESENT MAJESTY's Coins, as they have had upon Queen ANNE's, by which they may be known.

The *Monies* of his PRESENT MAJESTY's are the same of his Father's; his Head *Laureat*, looking the contrary Way, GEORGIUS II. DEI GRATIA; on the Reverse, the four Shields of Arms crown'd, with the Arms quarter'd the same, with St. George's Cross radiant in the Center, M. B. F. E. H. REX, F. D. B. ET L. D. S. R. I. A. T. ET E. 1727.

Formerly there was here, as there is still in other Countries, what is call'd the Right of *Seignorage* and *Brassage*; but since the 18th Year of King CHARLES II, there is nothing taken either for the King, or for the Expences of *Coining*; it having been settled by Act of Parliament, that all *Money* should be struck at the publick Expence: So that Weight is return'd for Weight, to all Persons who carry their Gold or Silver to the Tower.

The present current *Coins* in *England*, are of Gold, Silver, and Copper. The Gold *Coins* are, the *Guinea* and *Half Guinea*; the Silver are, the *Crown*, *Half Crown*, *Shilling*, and *Sixpence*; the Copper are, the *Halfpenny*, and *Farthing*.

Two Farthings make a Halfpenny; 48 Farthings, or 24 Halfpence, make a Shilling; 120 Farthings, or 60 Halfpence, or 2½ Shillings, make Half a Crown; 240 Farthings, or 120 Halfpence, or 5 Shillings, or 2 Half Crowns, make a Crown; 960 Farthings, or 480 Halfpence, or 20 Shillings, or 8 Half Crowns, or 4 Crowns, make a Pound Sterling; 1008 Farthings, or 504 Halfpence, or 21 Shillings, or 8 Half Crowns ⅔ and ⅓, or 4 Crowns and ⅓, or 1 Pound and ⅓, make a Guinea, or Piece.

In *Scotland*, by the Articles of Union, it is appointed, that all *Coins* be reduced to the *English*, and the same Accounts observed throughout; till then, the *Scots* had their Pounds, Shillings, and Pence, as in *England*; but their Pound was but 20 Pence *English*, and the others in Proportion. Accordingly, their Mark was 13½ *Scotch*, current in *England* at 13½ *d.* their Noble in Proportion. Besides these, they had

their turnorer Pence and Halfpence, their Penny ⅓ of that of *England*; besides base *Money* of *Achisons*, *Babees*, and *Placks*; the *Bodle*, ⅓ of the Penny, ⅓ of the *Achison*, ⅓ of the *Babee*, and ⅓ of the *Plack*.

In *Ireland*, the *Coins* are as in *England*, viz. Shillings, Pence, &c. with this Difference, that their Shilling, or Harper, is but equal to 9 Pence *Sterling*; whence their Pound is only ⅓ of the *English* Pound, or 15 *s.*

The *Species* coin'd in *England* are esteem'd contraband Goods, and not to be exported; all foreign *Species* are allow'd by Act of Parliament, made in 1643, to be sent out of the Realm, as well as Gold and Silver in Bars, Ingots, Dust, &c. Indeed, in the Session of Parliament in 1718, Endeavours were made to put a Stop to this Licence, which drains *England* of its richest Metals, but in vain; the Parliament having laid aside the Bill, without coming to any Resolution.

The *French* have a greater Variety of *Coins* than any other Nation in *Europe*, of Gold, Silver, Bullion, and Copper, and all those different *Coins*, those of Copper excepted, are far above their intrinsic Value, which is raised and lowered, at the King's Pleasure, i. e. very often; so that a Subject's Fortune changes sometimes three or four Times a Year, by no other Means than that of raising and lowering the Value of the *Species*. Sometimes he grows, all of a sudden, immensely rich, especially when he has a considerable Quantity of ready *Money* by him; and, all of a sudden, returns to his former Condition, or, perhaps, becomes a great deal poorer. Any Kind of *Coin*, either of Gold or Silver, is current but for a Time; for when the King designs to alter the *Species*, he decrees them, as they call it; so that these *Species* being thereby depriv'd of their Currency, the Subjects are forced to carry them to the Mint, to change them for new *Species*. I remember, that while at *Paris* at the Time of that destructive Scheme of the *Agiot*, or *Misfissipi*, I have seen the *Species* chang'd twice in a Week, and the Crowns of eight to the Mark, which were coin'd for six Livres, raised to fourteen, in the Space of three Weeks, and return again, in the same Space of Time, to eight Livres. This was a Piece of the most crafty Politicks, to oblige the most silly among the *French* to carry their ready Cash to the Bank, and change it there for Bank Notes; nay, Tradesmen themselves were so infatuated with the Hope of an extravagant Gain, by Means of those Bank Notes, that they were Fools enough to refuse ready Money in Payment for their Wares, and would take nothing but Bank Notes; which Bank Notes came at last to the Use they were intended for, i. e. *B-f-res*. For when his Royal Highness, the Duke Regent, saw that his Turn was serv'd, that he had called in almost all the *Species* of Gold and Silver of the Kingdom, as well as a vast Quantity of foreign *Coins*, that he had paid, in Paper, all the Debts of the Nation, which amounted then, as reported, to nineteen hundred thousand millions of Livres, he caused all those Bank Notes to be *decriées*, as we call it; so that those who the Day before were worth, perhaps, a million of Livres, were reduced, then, to a Halfpennyworth of Paper. There happen'd then a pleasant Adventure, which diverted much those who had been idle Spectators of that Tragi-comedy; which was, that three younger Brothers, of three noble Families of *Normandy*, having united all their Faculties, (which amounted, when join'd, to fifty thousand Livres) to turn *Agiotors*, as those Fools were call'd, finding, at last, all their Finances chang'd into that useless Paper, and themselves reduc'd to Beggary, and Despair, hearing that the *Receipt*, i. e. the King's *Money* raised in that Province, was to pass by the Place where they liv'd, they went to wait for it on the Road, carrying along with them their fifty thousand Livres worth of Paper, and along with it each a Pair of Pistols, well loaded. They stopp'd those who escorted the *Money*, open'd the Male, took out fifty thousand

thousand Livres in Cash, and put in lieu of it their fifty thousand Livres in Paper, bidding the *Hottens* to tell the Regent, their Master, that he had been pleased to give them that Paper for the fifty thousand Livres they took, but as he knew better what to do with that Paper than they, they thought they could do him no Injury, by drawing back their Money, and returning his Paper: But, however, as they suspected that his Royal Highness would not perhaps approve of the Drawback, they judg'd proper to draw themselves back likewise.

The frequent Changes happening in the *French* Species, is a very good Piece of Politicks to hinder them from being exported into foreign Parts, and to draw in foreign Coins, which succeeds to the Wishes of the *French* Ministry: For an *Englishman*, for Example, is sure that as soon as he is landed in *France* his Money increases by a Half, and that if he was to export the *French* Coin into *England*, it would diminish by a Half.

The only Gold Coin now current in *France*, is the *Double Louis*, the *Louis*, and the *Half Louis d'Or*; the *Double Louis* is 48 Livres, the *Louis* 24 Livres, and the *Half Louis d'Or* 12 Livres; the intrinsic Value of the *Louis d'Or* is very near the same with that of a Guinea; but as the Value of those Coins changes so often, it is impossible to fix any Equality between them and foreign Coins.

The *French* Silver Species are, the Crown, which should be always three Livres, tho' there are Crowns of four Livres, five Livres, six Livres, and eight Livres; and all far above their intrinsic Value; for sometimes a Piece which had been coined for forty Pence, will rise to a Crown of three Livres; and a Crown of three Livres to four Livres, and thus of other Species in Proportion: On the contrary, a Piece which had been coined for twenty Pence, will fall to fifteen, sometimes to ten. Besides the 40 Pence, 20 Pence, 10 Pence, and 8 Pence Pieces, there were also formerly 4 Penny Pieces, call'd *Invalids*, because coined on Purpose to pay the *Invalids*, which were but very little above their intrinsic Value. The Silver *French* Coin is the purest in *Europe*.

The Bullion Coins are, the five Farthing Piece, call'd *Sol Marqué*, and the ten Farthing Piece, call'd *Mousquetaire*.

The Copper Coins are, the *Liard*, or Farthing; and the *Deniers*; three *Deniers* make a *Liard*; and four *Liards*, or twelve *Deniers*, make a *Sol*, or Penny; but those *Deniers* are not current, but in some Provinces of the Kingdom, as *Britanny*, *Normandy*, *Poitou*, &c.

The *Spanish* Coin current, is divided into old and new Coin; the old Coin, current in *Sevil*, *Cadiz*, *Andalusia*, and some other Places, is worth 25 per Cent. more than the new, current at *Madrid*, *Bilboa*, *St. Sebastian*, &c. i. e. 100 Pounds old is equal to 125 Pounds new. This Difference is owing to their King *Charles II*, who in 1688, to prevent the Export of Money Abroad, raised it 25 per Cent. which, however, he was only able to effect in Part; several Provinces, as we have observ'd, still retaining the antient Rate.

The *Spanish* Coin is, like that of the other Countries of *Europe*, either Gold, Silver, or Copper; are the four Pistole Pieces, or quadruple; the double Pistole, or *Doublons*; the Pistole, Half Pistole, and the *Castilians* of Gold.

The Pistole is equal to 16 Shillings Sterling, and in *Spain* to 4 Pieces of Eight, or 32 Rials, or 1088 *Maravedi's*, or 1360 *Maravedi's* of Bullion; the other Gold Species in Proportion.

The Silver Coins are, the *Piastre*, or Piece of Eight Rials, and its Diminutions; as also the simple Rial, with its Diminutions. The Rial is equal to about Sixpence $\frac{1}{4}$ Sterling, and to 34 Silver *Maravedi's*, which Silver *Maravedi* is about a Farthing Sterling.

The Copper Coins are, the *Ostervo's*, or *Ostavo's*, which are of two Kinds; the one equal to four *Maravedi's*, and ordinarily call'd *Quarta*; the other double this, and call'd *double Quarta*.

The *Maravedi* is nearly equal to Half a Farthing; the Word is *Arabick*, and took its Rise from the *Almoravides*, a Dynasty of *Moors*, who passing out of *Africa* into *Spain*, imposed their own Name on this Coin, which, by Corruption, was afterwards chang'd into *Maravedi*.

The *Spaniards* always count by *Maravedi's*, both in Commerce, their Finances, &c. tho' the Coin itself is no longer current among them. Sixty-three *Maravedi's* are equivalent to a Rial of Silver; so that the *Piastre*, or Piece of 8 Rials, contains 504; and the *Pistole*, or four Pieces of Eight, 2060 *Maravedi's*. In the Laws of *Spain*, we meet with several Kinds of *Maravedi's*; *Alphonfine* *Maravedi's*, white *Maravedi's*, *Maravedi's* of good Money, *Maravedi's* *Combrenos*, black *Maravedi's*, and old *Maravedi's*. When we find *Maravedi's* alone, and without any Addition, it is to be understood of those mention'd above; the rest were different in Value, Fineness of Metal, Time, &c. *Mariana* asserts, that this Coin is older than the *Moors*; that it came from the *Goths*; that it was antiently equal to a third Part of the Rial, and consequently twelve Times the Value of the present *Maravedi*. Under *Alphonfus XI*, the *Maravedi* was 17 Times, under *Henry II*, 10 Times, under *Henry III*, 5 Times, and under *John II*, $2\frac{1}{2}$ Times the Value of the present *Maravedi*.

The *Piastre*, or Piece of Eight, is equal to 4 s. 6 d. Sterling; there are two Kinds of *Piasters*, the one struck at *Potosi*, the other at *Mexico*; these latter are a small Matter heavier than the former, but in Return they are not quite so fine. The Exchange between *Spain* and *England* is made in *Piasters*.

The *Spanish* Coinage is esteem'd one of the least perfect in *Europe*; it is settled at *Sevil* and *Segovia*, the only Cities where Gold and Silver are struck. It is true, there are brought from *Mexico*, *Peru*, and other Provinces of the *Spanish* America, such vast Quantities of Pieces of Eight, and other Species, both of Gold and Silver, that it must be own'd, there is no State in the World where so much Money is coin'd, as in that of the King of *Spain*.

In *Portugal*, they coin, likewise, Gold, Silver, and Copper; their Gold Coins are the most beautiful, and boldest in the whole World. They are, the *Milleray*, or *St. Stephen*; the *Moeda d'Oro*, and, of late Years, that beautiful Piece which is equal to 36 Shillings Sterling.

The *Moeda d'Oro*, or *Moidore*, is properly the *Portuguese* Pistole, and is equivalent to two *Millo-roes*, and to 27 Shillings Sterling; there are also *Doppio Moidores*, or double Pistoles, equivalent to 2 Pounds 14 Shillings Sterling; and double *Doublons*, equivalent to 3 Pounds 12 Shillings Sterling.

Their Silver Coins are, the *Cruzada*, *Patata*, or Piece of Eight, and the *Vintem*; whereof they have two Sorts, the one Silver, and the other Billion.

The *Res*, or *Rez*, which is equal to $\frac{1}{3}$ of a Farthing Sterling, is of Copper, and serves them in Accompts. 20 *Res* make a *Vintem*; 400 *Res*, or 20 *Vintems*, a *Cruzada*; 100 *Res*, or 50 *Vintems*, or $2\frac{1}{2}$, a *Mi-moeda*, or Half Pistole; 2000 *Res*, or 100 *Vintems*, or 5 *Cruzada's*, or 2 *Mi-moeda's*, a *Moidore*; 4000 *Res*, or 200 *Vintems*, or 10 *Cruzada's*, or 4 *Mi-moeda's*, or 2 *Moeda d'Oro*, a *Doppo Moeda*; 10000 *Res*, or 500 *Vintems*, or 25 *Cruzada's*, or 10 *Mi-moeda's*, or 5 *Moedas d'Oro*, or $2\frac{1}{2}$ *Doppio Moeda's*, a *Ducat* of fine Gold: Therefore,

	l.	s.	d.
A <i>Mi-moeda</i> is equivalent to	0	13	6
A <i>Moidore</i> to	1	07	0
A <i>Doppio Moeda</i> to	2	14	0
A <i>Ducat</i> to	6	15	0

There are as many different Sorts of current Coins in *Italy*, as there are States; tho' there are some common to them all, as the *Sequin* of Gold, and the *Ducatoon*, and *Llorin*, of Silver. The *Sequin* is equivalent to 9 s. Sterling, except that of *Venice*, which is worth, by Weight, 9 Shillings and 3 Pence, or 4 Pence. The *Ducatoon* is struck particularly at *Milan*, *Venice*,

Venice, Florence, Genoa, Lucca, Mantua, and Parma; they are equivalent to about 4s. 8d. Sterling. Italian Florins are worth about 8 $\frac{1}{2}$ d. Sterling.

The Coins peculiar to Rome, are; those of Silver,

The *Fule*, equal to ———— 0 6 $\frac{1}{2}$ Sterling.
Those of Copper,

The *Bayoco* ———— 0 0 $\frac{1}{2}$ Penny and $\frac{1}{2}$
The *Pignatel*, very near $\frac{1}{2}$ a Farthing Sterling.
Those peculiar to Venice, are,

The *Justine*, equal to ———— 4 9
The *Derlingue*, equal to ———— 1 2 $\frac{1}{2}$
That peculiar to Naples, is,
The *Carlin*, equal to ———— 0 6
That peculiar to Genoa, is,
The *Croifat*, equal to ———— 4 4
Those peculiar to the Principality of Monaco, are,

The *Monaco*, equal to ———— 4 4
The *Louis*, equal to ———— 0 3
Those peculiar to Piedmont and Savoy, are;
Those of Gold,
The *Louis d'Or*, equal to ———— 16 0
That of Silver,

The *Lep*, equal to ———— 2 6

In Holland, there are Coins of Gold, of Silver, of Billion, and of Copper; their Gold Coin is commonly a *Double Ducat*, equal to 18 Shillings Sterling, and of the purest Gold that can be coined, tho' they are not so just in all the foreign Coins they are pleas'd to counterfeit, which are either of base Alloy, or clipp'd.

Their Silver Coins are, Crowns, or Dollars, *Ducatoons*, *Florins*, and Shillings; each whereof has its Diminution. The *Stiver*, or common Shilling, is of Billion; the *Duyt* and *Penny* of Copper.

One Penny and a Half make a *Duyt*; 6 Pennies, or 4 *Duyts*, make a *Gros*; 12 Pennies, or 8 *Duyts*, or 2 *Gros*, make a *Stuyver*; 72 Pennies, or 48 *Duyts*, or 12 *Gros*, or 6 *Stuyvers*, make a *Scalin*; 236 Pennies, or 160 *Duyts*, or 40 *Gros*, or 20 *Stuyvers*, or 3 $\frac{1}{2}$ *Scalins*, make a *Florin*, or *Gilder*; 708 Pennies, or 480 *Duyts*, or 120 *Gros*, or 60 *Stuyvers*, or 10 *Scalins*, or 3 *Florins*, make a *Dollar*, or a *Ducatoon*.

The *Stuyver* is equal to ———— 0 1 $\frac{1}{2}$
The *Scalin* to ———— 0 7 $\frac{1}{2}$
The *Florin*, or *Gilder*, to ———— 2 0
The *Dollar*, or *Ducatoon*, to ———— 6 0

The Gold Coins in Flanders are, the *Imperials*, *Rides*, or *Philips*, *Alberts*, and *Crowns*. Those of Silver are, *Philips*, *Rixdollars*, *Patagons*, *Scalines*, and *Guldens*. The *Patards* are of Copper.

The *Stuyver* is equal to ———— 0 1 $\frac{1}{2}$
The *Scaling* to ———— 0 7 $\frac{1}{2}$
The *Gulden* to ———— 2 0
The *Rixdollar*, *Dollar*, *Patagon*, to ———— 4 6
The *Imperial* to ———— 11 3

All foreign Coins are current in Switzerland, and the *Swiss* have no Coins peculiar to themselves but the *Ratzes* and *Blazes* of Billion, the *Ratze* being something above $\frac{1}{4}$ of a Penny Sterling.

The *Danes* coin the *Horse*, the *Marc lubs*, and the *Schefdal*, of Silver.

The *Horse* is equal to ———— 1 1 $\frac{1}{2}$
The *Marc lubs* to ———— 1 6
The *Schefdal* to ———— 3 0

The *Swedes* coin both Silver and Copper Species; the Silver Species are, the *Christines*, *Carolines*, and *Cavaliers*. Those of Copper are, the *Roussique*, *Alleuvre*, *Mark*, and *Money*.

The *Christine* is equal to ———— 1 1 $\frac{1}{2}$
The *Caroline* to ———— 1 5 $\frac{1}{4}$
The *Mark* to ———— 0 2 $\frac{1}{2}$
The *Roussique* to ———— 0 0 $\frac{1}{2}$ and $\frac{1}{4}$ of $\frac{1}{2}$
The *Alleuvre* to ———— 0 0 $\frac{1}{2}$ and $\frac{1}{4}$ of $\frac{1}{2}$

The *Swedish* Money, properly so call'd, is a Kind of Copper, very soft and malleable, cut in little square Pieces, or Plates, about the Thickness of three *Englisch* Crowns, and weighing five Pounds and a Half, stamp'd at the four Corners with the *Swedish* Arms, and current in Sweden for a *Rixdollar*, or Piece of Eight; so that a Man must have a tolerably large Fob, or Pouch, to be capable to contain a few of those genteel Pieces, invented, as I suppose, for Counters for *Gargantua*, or *Pantagruel*, when they play'd at Ombre, with the Lady *Gargamelle*.

The *Poles* being, for the Generality, very greedy of Money, which they receive often with both Hands, especially at the Election of a new King, all foreign Coins are current among them; therefore they struck no other Coins, besides the *Rixdollar*, which is the same here, as in other Countries; but Silver *Roups*, *Abras*, and *Grochs*.

The *Groch* is equal to ———— 0 0 $\frac{1}{2}$ and $\frac{1}{4}$
The *Roup* to ———— 0 4 $\frac{1}{2}$
The *Abra* to ———— 1 0 $\frac{1}{2}$

In Muscovy, they strike no Money but of Gold and Silver, and that only in the Cities of *Moscow*, *Novogrode*, *Twere*, *Plescow*, and *Petersbourg*. The Coinage of each of these Cities is let to farm, and makes Part of the Czar's Revenue; they have but the Name *Copecs*, for both Kinds, tho' those *Copecs* have their Diminution, viz. the *Polusk*, which is $\frac{1}{2}$ of the *Copec*, and the *Mostofke*, which is $\frac{1}{4}$ of the *Copec*.

The *Copec* of Gold is equal to ———— 1 6 $\frac{1}{2}$
The *Copec* of Silver, of an oval Form ———— 0 1
The *Polusk* to ———— 0 0 $\frac{1}{2}$
The *Mostofke* ———— 0 0 $\frac{1}{4}$

Throughout the *Turkish* Empire there is no other Money coined but of Gold and Silver, on which is only inscrib'd the Prince's Name, with the Year of the Transmigration of their Prophet. Their Gold Coin is the *Sultanin*, call'd also *Scheriff*, or *Sequin*, equal to 9 Shillings Sterling. Their Silver Coins are, the *Parat*, or *Parafi*, the *Shakee* of *Aleppo* and *Scanderoon*, and the *Aspre*.

The *Parat*, or *Parafi*, is equal to ———— 0 1 $\frac{1}{2}$
The *Shakee* to ———— 0 3 $\frac{1}{2}$
The *Aspre* to ———— 0 0 $\frac{2}{3}$

In the Dominions of the Emperor of Morocco, on the Coast of *Barbary*, are struck, viz. at *Morocco*, the *Metacal* of Gold, which is a Kind of Ducat of different Fineness, consequently of different Value; which Difference arises hence, that there is no Mint fix'd, or regular Coiners at *Morocco*, but every Jew and Goldsmith strikes Ducats after his own Manner in open Shop. The *Rubies*, *Medians*, and *Ziams*, also of Gold, and struck at *Fez*, *Algiers*, and *Tunis*; these three Places coin, also, *Double's* of Silver, and *Burba's* of Copper. *Tunis* coins, besides, *Nafares*, and *Blanquilles*, of Silver, and *Felours* of Copper.

The *Rubee* is equal to 35 *Aspres*; the *Menian* to 50 *Aspres*; the *Ziam*, *Zian*, or *Dian*, to 100 *Aspres*; the *Double* to 18 *Aspres*; the *Burba* is the twelfth Part of an *Aspre*; the *Blanquille* is equal to 4 *Aspres*; the *Felours* is $\frac{1}{4}$ of the *Blanquille*; the *Merigal* is equal to about 390 *Aspres*; and the *Pardo* to 22 *Aspres*.

The *Rubie* is worth ———— 1 9
The *Menian* ———— 2 7
The *Ziam*, &c. ———— 5 2
The *Double* ———— 4 6
The *Burba* ———— 0 0 $\frac{1}{2}$
The *Blanquille* ———— 0 2 $\frac{1}{2}$
The *Felours* ———— 0 0 $\frac{1}{2}$ and $\frac{1}{4}$

The other Coins of Africa are, the *Merigal* of Gold current in *Sofala*, and the Kingdom of *Monomotapa*; and the *Pardo* of Silver, current in *Mosambica*.

The *Merigal* is equal to ———— 18 0
The *Pardo* to ———— 1 3
All the Money made in *Persia* is struck with the Hammer,

Hammer, and the same may be understood of the rest of *Asia*, *America*, and the Coasts of *Africa*, and even *Muscovy*; the Invention of the Mill not being yet gone out of *Europe*, nor even establish'd in every Part of it. The King's Duty, in *Persia*, is $7\frac{1}{2}$ per Cent. for all the Monies coin'd, which are now reduc'd to Silver and Copper, there being no Gold coin'd there, except a Kind of Medals, call'd *Tela*, at the Accession of a new Sophi; tho' this *Tela*, or *Cherafis*, has some Course in Commerce, because there is always a vast Quantity struck on such Occasion. Their Silver Coins are, the *Abassi*, *Mamoudi*, *Shakee*, and *Bisti*; those of Copper are, the *Kabeski*, and *Half Kabeski*.

	s. d. Sterling.
The <i>Abassi</i> is equal to	1 4 $\frac{1}{2}$
<i>Mamoudi</i> to	0 8 $\frac{1}{4}$
<i>Shakee</i> to	0 4 $\frac{1}{2}$
<i>Casbequi</i> to	0 0 $\frac{9}{12}$

The *Chinese*, following the Custom of antient Times, have no Money coin'd, but cut their Gold and Silver into Pieces of different Weights; those of Gold are call'd *Golchuts*, by the *Dutch*, from their resembling a Boat; there are two Kinds of these *Golchuts*, viz. the *Golchut* an Ingot, which, at 3 Pounds 3 Shillings per Ounce, usually amounts to 101 Pounds 5 Shillings *Sterling*; and other *Golchuts*, which only weigh Half as much; their Value in Proportion. Their Silver Coin is the *Leam*, call'd, by the *Portuguese*, *Tael*, which is equal to 6 Shillings and 8 Pence *Sterling*; their Copper Money is $\frac{1}{10}$ of the *Leam*, or somewhat more than $\frac{1}{4}$ of a Farthing.

The *Chinese* have, besides the abovemention'd Species, a small Money of Lead mix'd with the Scum of Copper, with Holes in the Middle, to string them on, for the Ease of numbering; they call these Species *Caxa*, *Cafes*, or *Pitis*; and the String, which usually holds 200 of them, is call'd *Santa*. They are so very brittle, that they never fall without breaking into a great Number of Pieces, and, if left all Night in Salt Water, stick so close together, that they can't be separated. One of these *Caxa's* is equal to $\frac{1}{3}$ of a Farthing *Sterling*, and 300000 of them nearly equal to 56 *Dutch Livres*.

The *Japonefe* coin Gold, Silver, and Copper; they call their Gold and Silver Coins *Coupant*; they have two Sorts of Gold *Coupants*, viz. *Coupants* of a long oval Figure, weighing one Ounce, six Drachms, and equal to six Pounds, twelve Shillings, and Sixpence, *Sterling*; and other *Coupants*, near one Third of the former, amounting to about two Pounds, four Shillings, and two Pence. The Silver *Coupant* is equal to four Shillings and six Pence *Sterling*. Their Copper Money is equal to $\frac{2}{3}$ of a Farthing *Sterling*; they bore them in the Middle, like those of *China*, and string them. The *Japonefe* have, besides, like the *Chinese*, *Ingots*, which they cut of three different Weights; the largest of 6 Rials, or 48 *Taels*, the *Tael* equivalent to 75 *Dutch Styvers*; the second equal to 6 *Taels* and a Half; and the third to $\frac{2}{3}$ of a Rial, or 1 *Tael* and $\frac{1}{3}$.

In the Dominions of the *Great Mogul* are coin'd *Rupes*, both of Gold and Silver; *Mamouda's*, of Silver; and *Pecha's* of Copper.

	l. s. d. Sterling.
The <i>Rupee</i> of Gold is equal to	1 11 6

There are two Kinds of Silver *Rupes*, viz. the old *Rupes*, and the new *Rupes*; and three different Sorts of both Kinds, viz. the old *Rupes* of *Madras*, and the new *Rupes* of *Madras*; the old *Rupes* of *Surat*, and the new *Rupes* of *Surat*; the old *Rupes* *Siccas*, and the new *Rupes* *Siccas*.

	Sterling.
	s. d.
The old <i>Rupes</i> of <i>Madras</i> are equal to	1 11
New <i>Rupes</i> of <i>Madras</i> , to	2 05 $\frac{1}{2}$
Old <i>Rupes</i> of <i>Surat</i> , to	2 00
New <i>Rupes</i> of <i>Surat</i> , to	2 03
Old <i>Sicca's</i> , to	2 04
New <i>Sicca's</i> , to	2 11

There are two Sorts of *Mamouda's*, viz. the great and small *Mamouda*.

	s. d. Sterling.
The Great <i>Mamouda</i> is equal to	0 11
Little <i>Mamouda</i> , to	0 06 $\frac{1}{2}$
<i>Pecha</i> , or <i>Pessa</i> , to	0 00 $\frac{1}{2}$

The Princes tributary to the *Great Mogul* have also each their particular Coins, viz.

The King of *Matoucha*, whose Territories lie to the North of *Agra*, the Capital of the *Mogolistan*, strikes a small Silver Coin, equal to an *English* Halfpenny.

The *Raja* of *Parta-jajamoula*, to the North of *Patua*, strikes, likewise, little Pieces, both of Silver and Copper, of small Value.

The *RAJA*, or King of *Ogden*, who commands between *Brampour*, *Seronge*, and *Amadaboth*, coins a Silver Money equal to 6 Pence *Sterling*; and another of Copper, equal to a Halfpenny *Sterling*.

The King of *Cheda* and *Peza*, a Tin Money, call'd, also, *Cheda*, of which there are two different Sorts, viz. one octagonal, equal to 1 d. $\frac{3}{4}$ *Sterling*; and the other round, equal to $\frac{1}{7}$ of a Penny *Sterling*.

The King of *Achem* coins little slight Gold Pieces, worth about 15 Pence *Sterling*; and Tin Pieces, 80 of which are equal to the *English* Penny, current in the Isles of *Sumatra*.

The King of *Macassar* coins a Gold Piece, equal to 1 Shilling and 10 Pence Halfpenny *Sterling*.

The King of *Cambaya* strikes only Pieces of Silver and Copper; his Gold, wherein he abounds, is negotiated by Weight.

The Kings of *Java* and *Bantam*, in the same Island of *Java*, and those of the *Molucca* Islands, strike only Copper Coins; they allow foreign Silver Species to be current in their Countries, but coin none.

On the Coasts, and in the Islands of the *Indies*, besides the *Pagodo's*, *Rupes*, *Lazins*, *Fano's*, or *Fanons*, and *Coupants*, both of Gold and Silver, which are the generally current Coins, several of those Places have their particular Coin, viz. at *Goa*, the *St. Thomas* of Gold, and the *Fardos*, and *Xeraphin*, of Silver.

	s. d. Sterling.
The <i>St. Thomas</i> is equal to	9 0
<i>Fardos</i> , to	2 8 $\frac{1}{2}$
<i>Xeraphin</i> , to	2 1

Along the Gulph of *Persia*, about *Mecca*, and throughout *Arabia*, the *Larin*, which is in Form of a round Wire, or Cylinder, equal to the Barrel of a Pen, bent in two, and a little flattened at each End, to receive the Impression of some *Arabick*, or *Persian* Characters. The *Larin* is equal to eleven Pence *Sterling*.

At *Bantam*, the *Fardos* already mention'd. At *Malabar*, the *Tare*, equal to a Halfpenny *Sterling*.

At *Surat*, *Agra*, and the Rest of *Indostan*, the *Pecha*, and *Doudous* of Copper; and the *Basarucos* and *Chedas* of Tin.

	s. d.
The <i>Pecha</i> is equal to	00 00 $\frac{1}{2}$
The <i>Doudous</i> also to	00 00 $\frac{1}{2}$
The <i>Basaruco</i> to	00 00 $\frac{1}{2}$
Octagonal <i>Cheda</i> to	00 00 $\frac{3}{4}$
The round <i>Cheda</i> to	00 00 $\frac{1}{4}$

At present for the Coins generally current through all these different States.

	l. s. d. Sterling.
The <i>Pagodo</i> of Gold thus denominated from its Impression, an <i>Indian</i> Idol, is equal to	00 5 00
The smallest <i>Pagodo</i> of Silver is equal to	00 8 00
The largest <i>Fanos</i> of Gold is equal to	00 9 00
The smallest to	00 0 2 $\frac{1}{2}$
The <i>Fanos</i> of Silver to	00 0 1 $\frac{1}{4}$

Besides all these different Coins above-mentioned, the Kingdom of *Siam* has its particular Species of Gold, Silver, and Copper. The gold Species are five or six Grains

Grains heavier than the half *Spanish* Pistole, and are equal to seven Shillings *Sterling*, but they are seldom seen in the Commerce. The Silver Coins are the *Tical* or *Baat*, the *Mayam* or *Seling*, the *Foans*, and *Sanpayc*. These Pieces resemble Nuts, a little flattened at the Extremities; and are some of them cloven like Horse-shoes: On two of the Sides are some *Siamese* Letters. The Copper Money are the *Bia* and the *Cauris*.

	s.	d.	<i>Sterling</i> .
The Tical or Baat is equal to	06	11	$\frac{1}{2}$
The Mayam to	00	5	$\frac{1}{4}$ and $\frac{1}{8}$
The Foans to	00	2	$\frac{3}{4}$
The Sanpayc to	00	1	$\frac{1}{2}$ and $\frac{1}{4}$
The Bia to	00	00	$\frac{6}{10}$

In some Parts of the *East-Indies*, particularly in the States of the great *Mogul*; in a considerable Part of *Africa*, particularly in the Kingdoms of *Angola* and *Congo*; and in some Part of *America*, Shells serve for Money. Those current in the *East-Indies* are brought from the Maldives, where they are dug out of the Ground: The *Indians* call them *Cowries*, or *Boages*, sixty-five of them are reckoned equivalent to the *Pone*, a small Copper Coin, worth about an Half-penny *Sterling*; which brings each *Cowry*, to $\frac{1}{130}$ of a Penny *Sterling*.

In the Kingdoms of *Angola* and *Congo* those Shells are called *Zimbis*, 2000 *Zimbis* make what the Negroes call a *Macuta*, which is no real Money, whereof there is none in this Part of *Africa*; but a Manner of reckoning: Thus, two *Flemish* Knives they esteem a *Macoute*; a Copper Basen two Pound weight, and twelve Inches Diameter, three *Macoutes*; a *Fusy ten*, &c.

The same Shells are called *Porcelains* in *America*, and are on the same Footing with the *Cowries*.

After this strict and curious Examen of the different current *Coins*, both antient and modern, of all the Countries of the known World, of their different Matter, Form, Value, &c. It will not be improper to observe here, that there are false or base *Coins*, which are either struck by an unqualified Person, and of unstatutable Metals; or those which have lost of their Weight, either by being clipped on the Corners, or filed on the Edges, or by having some of their Surface peeled off; if Gold by *Aqua Regalis*, if Silver by *Aqua Fortis*. Those who apply themselves to that black Art are the most barbarous of all Robbers, and should be punished as such, without the least Compassion, for they not only rob a private Person, but a whole Commonwealth, the poorest Member as well as the rich; for that Money thus clipped will perhaps fall to the Lot of a poor Handicraft-man, who has worked all the Week like a Slave, in Hopes to have at the End a certain Sum of Money, on which his Family depended to supply their present Wants, when he'll find himself disappointed, not by the Fault of the Person who is to pay him, but by his being paid in a *Coin* which has lost two or three Shillings of its Value, more or less, in the infamous Hands of a cruel Clipper. This infamous Practice of clipping, filing, &c. has been long in Vogue in *England*, and

is not yet entirely abolished; for if the Officers of the Mint would be pleased to inspect narrowly into it, they will find yet some of those Ruffians lurking in their Holes, and applied to their Deeds of Darknes. Let them be routed out and bleed that innocent Blood they have fed themselves with.

Another Kind of false *Coins* are those made of Pieces of Iron, Copper, or other Metal, covered on each Side with a thin Plate, or Leaf of Gold or Silver, neatly foldered and joined around the Edges, and struck like other *Coins*, with Figures, Legends, and only to be distinguished from them by the Bulk, Weight, and Sound. I would ask our Divines, if those who set off those false or clipped *Coins* after they have discovered the Fraud, though they be Losers by it, are not as guilty as the Clippers, or false *Coiners* themselves.

The Place where the Money is coined is called *MINT*. In *France* there are as many *Mints* as there are Letters in the Alphabet, and it is known by the Letter of the Alphabet placed in the Exergue of the *Coin*, where the Piece has been struck. All the Species coined at *Paris* are marked with the Letter A. Those coined at *Roüen* in *Normandy* with the Letter B. &c. In my Province of *Brittanny* we have two *Mints*, one at *Rennes*, where the Money is marked 9. and another at *Nantz*, where they are marked with the Letter T.

Though there were antiently *Mints* in most Cities of *England*, there is at present but one, and that in the *Tower of London*. This *Mint* was made a Corporation by a Charter of King *Edward III.* and consists, 1. Of the Warden or Keeper of the Exchange and *Mint*, whose Office is to receive the Bullion brought in by Merchants, Goldsmiths and others, to pay them for it, and to over-see all the other Officers. 2. The Master-worker, who receives the Bullion from the Warden, causes it to be melted, delivers it to the Moneyers, and takes it from them again, when coined: His Allowance formerly was not any Set-Fee, but according to the Pound-weight; as by an Indenture under the Great Seal. 3. The Comptroller, who sees that the Money be made to the just Assize, to over-see the Officers, and reprimand them if the Money be not as it ought to be. 4. The Assay-Master, who weighs the Silver and Gold, and sees whether it be Standard. 5. The Auditor, who takes and makes up the Accompts. 6. The Surveyor of the Melting, who is to see the Silver cast out, and that it be not altered after it is delivered to the Melter, i.e. after the Assay-Master has made Trial of it. 7. The Clerk of the Irons, who is to see that the Iron be clean, and fit to work with. 8. The Graver who engraves the Dies and Stamps for the *Coinage* of Money. 9. The Melters, who melt the Bullion before it comes to *coining*. 10. The Blanchers, who anneal or boil and cleanse the Money. 11. The Porters, who keep the Gate of the *Mint*. 12. The Provost of the *Mint*, who provides for all the Moneyers, and oversees them. And lastly, The Moneyers, some of which shear the Money, some forge it, some stamp or coin it, and some round and mill it.

C O M M E R C E.

COMMERCE is the Exchange of Commodities; or the buying, selling, or trafficking of Merchandize, Money, or even Paper; in Order to profit by the same.

Commerce is divided into Foreign, and Domestick or Inland Commerce.

Foreign Commerce is either by Land or by Sea; and that by Sea, by long or short Voyages. And Domestick or Inland Commerce is either by wholesale or retail; and sometimes by both.

There are some general Qualifications common to

all Sorts of Commerce, and some peculiar to each Sort of Commerce, requisite in the Person who undertakes to be a Merchant, under either of the aforesaid Denominations, and which he must endeavour to acquire before he can expect to drive on a Commerce, with Hopes of obtaining the End proposed by it.

The first general Qualification is to have a Fund of Stock sufficient to trade with Credit and Reputation both at Home with his Partners, if he has any, and Abroad with his Correspondents, that he may be capable to bear his Share of all the Charges and Expenses)

pences, and of the Losses, when they happen, with the one, and to answer all the Demands of the other, which are not contrary to the established Rules of a lawful *Commerce*, without being obliged to the shameful Necessity of protesting a Bill of Exchange, &c. because he has no Cash to pay it.

The second Qualification is Probity, which will always make a Merchant deal fairly and candidly with every Body, to be contented with a reasonable and honest Profit; to put none but the best Goods in the Hands of his Customers; to pay honestly and exactly all the Handicraft-Men he is obliged to employ, without taking the cruel Advantage of their Necessity, to undervalue their Work, and to avoid those fraudulent Bankruptcies, which is the worse Theft, and for which no Legislature has found yet Punishment severe enough.

The third general Qualification is to understand very well every Branch of the *Commerce* he undertakes, that he may not be obliged to rely entirely on the Conduct, Honesty, and Capacity of Agents, Brokers, Clerks, Book-keepers, &c. who have seldom all the good Qualities necessary to qualify them for their Trust; for if they understand very well their Business, they perhaps want Honesty; or if they are honest, they want Conduct; but even suppose that they had all the good Qualities imaginable; that they were honest, capable, diligent, careful, &c. which is very rare; it is notwithstanding always very dangerous for a Merchant to confide wholly in Servants for the entire Management of his Affairs; for his Negligence or Carelessness alone would, perhaps, put them in Mind to act otherwise, than they designed to do when they enter into his Service; for we have an old Proverb in *French*, which, though vulgar, is nevertheless very just *l'Occasion fait le Laron*, the Occasion makes the Thief; therefore a Merchant, let him be ever so rich, or so great, should never believe it beneath him, to visit often his Warehouses, to see what Care is taken of the Goods repositied there, and what Kind of Wares are brought in: He should also hear, with some Familiarity, the Servants he has appointed to those Places, in Order to discover by their Discourse, if none of them appropriate to their own Use, or to speak in plain *English*, rob their Master; which is but too often the unhappy Fate of plain-dealing honest Merchants, who, infatuated with the supposed Honesty of their Servants, leave them a full Career, to act as they please, and would even think it a Sort of Injustice in them to suspect a Servant, who all the while, sells their Goods for his own Use, and reduces them at last to the shameful Necessity of sacrificing their Credit and Reputation to the Security of their Person, by a Bankruptcy. A Merchant should also inquire if the Artificers, who bring Goods to his Warehouses, do not make Presents to the Warehouse-keepers, or Clerks, in Order to engage them to take bad as well as good Merchandizes, as it happens but too often, and which contribute much towards lessening the Credit of a Merchant, who sees his *Commerce* declining daily, without being capable to discover the Cause thereof, when there is no other than the Perfidy of their Servants, who put bad Goods in the Hands of his Customers, while at the same Time he designs they should be supplied with the best, since he pays for the best; a few Turns in his Warehouses, at least twice a Week, would remedy that destructive Inconveniency. He should likewise sit often in his Compting-Houses, and watch narrowly the Conduct of his Book-keepers, and examine often his Books himself, especially the most essential ones, as the Ledger, Cash-book, Book of Invoice, and of Remittances, &c. and therefore should be himself a very good Accomptant, or Arithmetician.

If a Merchant carries on a Domestick or Inland *Commerce*, besides all the heretofore-mentioned general Qualification, he must have these particular ones; viz. 1. To be very well skilled in the Commodities he deals in, so as to be a perfect Judge of their Goodness; never employing, or never buying but from the best

Artificers; and never attempting to lower their Price; when he knew that it is impossible they could afford the best Sort of Goods for less; for then he would necessitate them for Fear of losing his Custom, and at the same Time have the same Gain; to impose bad Goods upon him. 2. To never retale his Goods if he has set up for a wholesale Merchant, since thereby he prejudices vastly the Retailers; or if he be obliged to do it, never allowing his Merchandize, thus retailed; at a lower Price than the Retailers can afford to sell them, since he is always sure to dispose of his Goods to those Retailers, whereas, was he to sell them at the same Price they are allowed to the Retailers, those poor Retailers Shops would be deserted, since 'tis reasonable enough to suppose that we can find a greater Choice, and better Merchandizes in a Warehouse than in a Retailer's Shop, and who would forbear resorting to it, if, besides these Advantages, he is sure also to buy there at a lower Price. 3. A wholesale Dealer should never give too much Credit to Retailers, unless he be very sure of his Money; neither will an honest Retailer, who designs to pay, or is in a Condition to pay, insist upon being trusted too much or too long; which is always very detrimental to a wholesale Dealer, who can gain a great deal more by the quick Return of his Money, than by the exorbitant Profit he expects from trusting, besides the great Risk he but too often runs of losing both Principal and Interest. 3. A wholesale Dealer ought not, under that Pretext of trusting, to put bad Merchandizes, or the Rubbish of his Warehouses, to Retailers, since he reduces them thereby to the Necessity of selling those bad Merchandizes often cheaper than prime Cost; and consequently to the Impossibility of repaying him, besides exposing their Shops to be discredited. 4. A Retailer can scarcely commit a greater Crime than that of taking Merchandizes at any Rate, and of any Sorts, good or bad, of a wholesale Dealer, with the premeditated Design of never paying for them; and of selling them at any Rate, with no other View than that of getting Money for his own Use. Another Crime as enormous as this, in a Retailer, is to sell by bad Weight or Measures, which is robbing impudently a whole Commonwealth, and distressing in particular the poorest Members of it; who, when they pay for a Pound or a Yard, &c. of Merchandize, are cheated, perhaps, by the Retailer of half an Ounce, or an Ounce in that Pound, or a Nail in that Yard. Though the Legislature in *England* has took all the necessary Precautions against such barbarous Frauds, by fixing a Standard for the Weights and Measures of the Kingdom, and appointed besides a Set of Men to visit from Time to Time the Retailers Shops, and examine their Weights and Measures, with Power to fine the Delinquents; but their Design is but too often frustrated in that Case; for those Persons, who were appointed for that Visit, should come on the Retailer unaware, or when he expects them less: They have not only a certain fixed Time for their Visit, but they likewise make them with so much Ceremony or Formality, that the unfair Dealer, being apprized of it, has all the Time to hide his bad Weights and Measures, and to put in their Place, those at the Standard, which are never seen in his Shop, but at the Time of those Visits; and if, by Chance, the Retailer is surprised in flagrant Delict, by thrusting some Money into the Hands of the Visitors, his Fraud is concealed, and he escapes unpunished. The Fraud does not consist wholly in the Weight; for a Retailer may have his Weights at the Standard, and nevertheless defraud his Customers; for a certain very honest Scale-maker, in *Maiden-lane, Wood-street*, in the City, told me once, that there are very few Shops, especially Chandlers Shops, who have not an Art to give a Turn to their Scales, and that they commonly thrust a Pin in the Loop a-top of the String (in the Scales with Strings) on that Side they put the Merchandize in, to make that Side bare down sooner than the other, wherein they put the Weights.

A Merchant who carries on a Foreign Trade, should be very well acquainted with the different Products of the

the Country, or Countries he trades to, and which Part of those Countries produces the best Goods, and perfectly know the best, readiest, and cheapest Means to come at them, and consult the best Method how to have them the soonest Imported; for that Purpose he should have always (especially if he carries on a considerable *Commerce* capable to defray the Expences of it) a trusty and honest Factor (if such a Thing can be found) at the Place where he trades to; to whom he shall allow an honest Salary, and the Liberty to trade for himself if he pleases, (to take off all Sort of Temptation of Cheating) which Factor should take a particular Care, and spare neither Money nor Trouble, to have always the best Merchandize against the Time fixed for the Exportation; that the Carriages, or Ships should not wait through his Negligence, which Delays, let them be ever so little, are always attended with very great Inconveniencies, and always prove very prejudicial to his Merchant; for if he trades either by Land or Sea, he runs the Risk of losing, perhaps, the Sale of his Merchandize when arrived, or, at least, of keeping it longer on his Hands, than he had done, if his Factor had been more expeditious; for the Factors of other Merchants, who deal in the same Commodities, having used a greater Diligence in supplying their Masters, have put them in a Condition to supply the Country with the Goods it wanted, and with as much, perhaps, as it wanted at that Season, before the unhappy Master of the indolent Factor can receive his. The other Inconveniencies are, that if the Merchandizes are to be exported by Sea; the Ships, by those Delays, will lose the Opportunity of a fair Wind, and be detained one, perhaps two, four, and sometimes six Months longer in the Harbour than they should, during which Time the Provisions are exhausted, and a fresh Stock must be provided, the Wages of the Sailors run, and the Cargo is exposed, perhaps, to be damaged; besides the losing, if in Time of War, the Advantage of a Convoy, and of being exposed thereby to fall in the Enemy's Hands, or to a greater Inconstancy of the Weather, to Tempest, &c. by the Change of the Season, during which Ships are often lost.

But if the Negligence of a Factor is always prejudicial to a Merchant, his being over diligent can also be attended with some Inconveniencies, especially if he stuffs his Warehouses with damageable Goods, and which are not of a long keeping, a long while before they can be exported, because, perhaps, he meets with a Bargain; for of what Service can be that Bargain to his Merchant, if when he receives his Merchandizes they are not fit to be exposed to Sale, and he'll be obliged, perhaps, to sell them a great deal cheaper than prime Cost, or throw them in the Street?

If a Factor embarks Bale Goods, he must take Care to have them well pack'd up, that the Water could not reach them to damage them, and see himself that they be put in that Part of the Ship, where they are less exposed to Dangers of that Kind: If Wines or other Liquors, he must have them put into well conditioned Casks, strong and very well hoop'd, for otherwise, by the continual Motion of the Ship, they would chance to burst the Cask, and be lost, which happens but too often. He must visit the Ship before it sets Sail, to see if there are any necessary Reparations wanted, and see them done, and also consult the Wind as often, and even oftner than the Master of the Ship himself does, that he may lose no Opportunity of sailing when the Wind serves, and there is no just Cause to hinder it.

Besides all this above-mentioned, a Factor is to be very exact in observing the Commission or Order of his Merchant; he ought to inform himself carefully of the Commodities his Merchant deals in, and what sells best, and of the Course of Exchange; to inform his Merchant whenever he buys or sells, Ships off, or receives Goods; for if he sells a Parcel of Goods, and neglects to give Advice thereof, and in the mean Time the Buyer proves insolvent, the Factor shall pay the Debt, although he had an absolute Commis-

sion; for no Man gives Commission to have his Goods sold, and not to know of it, though the Commission be absolute.

I say absolute Commission, for there are two Sorts of Commissions given to Factors, viz. an absolute Commission, and a limited one.

An absolute Commission is when a Merchant gives his Factor free Power to buy, sell, or barter a Commodity, at Discretion, or as he thinks fit; in which Commission are usually these Words, *Buy or sell such Commodity as the Market goes: Or, As to Price, I leave it wholly to you, and desire you to act as for your self.* But a limited Commission does bind, or tie the Factor to a certain Price, for the buying or selling any Kind of Merchandise; in which Commission are usually these Words, *Buy or sell such a Commodity at so much, or if you cannot, let it alone: Or, If you cannot sell such Commodity, at such a Price, keep it till farther Order.*

If a Factor, says *Malons*, sells Goods for his own Account to another, payable at Time, and receives the same when it is due; and, in the mean Time, lets other Men's Money remain in that Man's Hands unpaid, for Goods by him formerly sold; this Factor is to be answerable for that Money to those other Men, although he should never recover a Penny of it: For he can't, without Fraud, bear with the Non-payment of other Men's Money, when due, and procure the Payment of his own.

If a Factor buy a Commodity according to Commission, and afterwards the Price advances, and the Factor fraudulently converts the Gain to his own Use; the Merchant, in this Case, may recover Damages from his Factor, by the Custom of Merchants, upon Proof thereof.

If a Factor, by the Advice of his Merchant, buy a Commodity with his Merchant's Money, or by his Credit, and his Factor, without Advice, sells the same again for his own Benefit; the Merchant shall recover this Gain of the Factor, and, moreover, shall be amerced for the same.

If a Factor sells his Merchant's Goods to a Man discredited, and that Buyer breaks before Payment, the Factor shall pay for the said Goods, unless he can prove that he was ignorant of it, and that he trusted the Man for Goods of his own also.

If a Factor do, by false Entry at the Custom-House, conceal Part of the Custom, without Advice of his Merchant, whereby the Goods become forfeited to the Prince; the said Factor shall answer the Value thereof to his Merchant, as they cost, if for Goods to be exported; or as they might have been sold, if it be for Goods to be imported.

If a Factor, or Merchant, in *England*, procures a Merchant Stranger Goods, to pay but *English* Custom, by entering them as his own; such Factor, or Merchant, shall forfeit all his Goods to the King.

If a Factor makes any Return to his Merchant for the neat Produce of Goods sold, in prohibited Goods, without Commission, the Factor shall bear the Loss, or Damage; but if a Factor do any unlawful Act, by Order of his Merchant, the Merchant shall make good the same, and the Factor shall pay triple Damages.

If a Factor be robb'd of his Merchant's Goods, he shall bear the Loss.

If a Factor buys Goods which afterwards become damag'd by Accident, the Merchant shall bear the Loss.

A Factor is only accountable for the Money he receives for Goods sold by him, &c. but if any Part prove false Coin, or bad, he is to make it good.

If a Factor, by Bill of Exchange, makes a Sum of Money payable to a Person that breaks before the said Bill is due; the Factor, in this Case, may, and ought to countermand his Bill from the Acceptor, which if he has paid the broken Merchant before due, he is answerable for the same to the Factor.

If a Factor has Orders from his Merchant to insure Goods, &c. for a certain Voyage, and has Money in his

his Hands sufficient to pay the *Premium*; if this Factor neglects the same, and does not insure, and the said Ship or Goods perish at Sea, the Factor shall be answerable for the Damage to his Merchant; unless he gives very strong Reasons why he did not insure.

If a Factor, having insur'd Goods, &c. which happen to be lost, and the Factor (having no Order or Commission to act at Discretion) makes Composition with the Insurers, he shall be answerable to his Merchant for what Abatements he makes, as well as for the rest that was insured.

If a Factor wrongs his Merchant by Errors in Accounts, he is to make good the same, not only the Principal, but likewise the Interest thereof; and the contrary, if the Factor happens to wrong himself by not charging the Merchant. It is therefore usual for all Factors, in their Account of Sales, or Invoices, to write at the Foot of the Accounts, *Errors excepted*.

Factorage, Provision, or Commission, is the Wages of a Factor, and is so much to the Factor for every hundred Pounds Value of the Produce of Goods bought or sold by the said Factor; which Provision is usually more or less, according to the Distance of the Factory, or Place of Trade. Thus, a Merchant at *London* allows his Factor,

At <i>Barbadoes</i> , and most other Parts of the <i>West-Indies</i> —	5 $\frac{1}{2}$ l. per Cent.	Commission for buying, and as much for selling.
At <i>Smyrna</i> , <i>Aleppo</i> , and other Parts of <i>Turkey</i> —	3 l. per Cent.	
At <i>Leghorn</i> , and other Parts of <i>Italy</i> —	2 $\frac{1}{2}$ l. per Cent.	
At <i>Spain</i> , <i>Portugal</i> , or <i>France</i> —	2 l. per Cent.	
At <i>Hamburg</i> , and other Parts of the <i>East-Land</i> —	2 l. per Cent.	
At <i>Rotterdam</i> , and other Parts of the <i>United Provinces</i> —	1 $\frac{1}{2}$ l. per Cent.	
Inland Factors have usually —	1 $\frac{1}{4}$ l. per Cent.	

Which Factorage, or Commission-money, is inserted among the other Charges the Factor has been at, concerning his Merchant's Goods; as Warehouse-Room, Brokage, Wharfage, Custom, &c. and being deducted out of the total Sum the Factor sold his Merchant's Goods for, the Remainder is call'd the neat Proceed of the Account.

A Merchant who trades by Sea, being provided with a Factor thus qualified, at all the principal Ports he trades to; must also take Care, if he designs to make all the Advantage he can of his Commerce, whom he intrusts with the Command of his Ships; for the bad Conduct, Knavery, &c. of a Master of a Ship, is oftner the Cause of the entire Ruin of a Merchant, than any other Accident that can happen to him: He should search Masters for his Ships, which, besides being very expert in the Art of Navigation, should have his Interest as much at Heart as his own; and not employ those indolent, and lazy Fellows, who are so tedious in their loading and unloading, that they devour Half the Profit of their Freight, before they can be persuaded to quit the Harbour; and unless they have always a Merchant, or his Factor, at their Backs, are two or three Months in doing what could have been easily done in a Month or six Weeks; who pretend to be always hunting after their Sailors, and their Sailors after them, so that neither of them wish to find one another: Nor those barbarous Wretches, who use their Sailors worse than if they were rowing in a Galley in *Turkey*; beating them inhumanly, and sometimes killing them; which is the Cause, as might reasonably be supposed, why

the Crew of so many *English* Merchant Ships rise against the Master, and run away with the Ship, which does not happen in an Age in another Country, where they use Sailors, especially in *France*, with a great deal of Humanity and Moderation; never beating the Sailors, but for some great Fault committed; and then they receive the Punishment prescrib'd by the King's Ordinances, for the good Order to be observed in the Navy. For if, in *France*, the Master of a Merchant Ship has used a Sailor barbarously; during the Voyage; that Sailor, by making his Complaint, at his Return; to the *Commissary*, or *Intendant* of the Marine, may expect an ample Satisfaction, and the Master to be punished according to the Heinousness of the Crime: And if he was to kill one of his Sailors, which never happens, he could not escape from being hanged: Nor those mercenary Masters, who seldom consider how good the Sailors are, but how cheap they can have them; or who starve their Sailors, or feed them with bad Provisions; or so overload a Ship, that it can neither sail, nor be worked well; hence its being always in Danger of being lost, in hard Weather: Or those, who, to save Wages, never take a sufficient Number of Hands to work the Ship: Nor those who are so infatuated with their pretended Skill in the Art of Navigation, as to be above following any other Advice but their own; and often go to break their Noses against a Coast, and wreck on a Rock, &c. when they have been forewarned against it. For the Master of a Ship, let him be ever so expert, can't sail with too much Caution, when he thinks himself near any imminent Danger. Nor those infamous Thieves, who wreck their Merchant's Ship on purpose, to defraud those who have insured it, or for some other private View. Was I a Merchant, I would never intrust with the Command of a Ship, a Master who is universally hated by all the Sailors that know him; for it is a Sign that he really uses them very ill, and would, perhaps, lay hold of any Opportunity to be revenged of him, at the Merchant's Expence.

A Merchant employs, also, oftentimes, *Brokers*, which are a Kind of Factors; who are usually decay'd Merchants, or Men that know their Trade well, but perhaps have not a Stock to trade themselves, but having great Acquaintance, are employ'd by Merchants to bring Customers to buy their Merchandise, for which the Merchant usually allows the Brokers about Half per Cent. These Men are mostly of known Integrity, and upon the Broker's Word the Merchant gives often the Buyer Credit.

These are the principal Persons commonly employ'd by Merchants who carry on a very considerable foreign Commerce; and they should also take Care, that among those, especially their Factors, Cashiers, and Warehouse-keepers, should speak several Languages, especially the most universally spoken in the Countries they trade to. If they trade to the *West-Indies*, their Factors there should speak *Spanish*; if to the *Levant*, or *Turkey*, the *Lingua Franca*; if to *Italy*, *Italian*, or *French*; if to the *North*, *German*, or *French*; if to the *Low Countries*, *French*; if to *Holland*, *Dutch*, or *French*: And I can venture to say, that a Factor, who speaks *French*, can serve for all Parts of the World, except *Turkey*, and the *West-Indies*. The Merchants themselves, if it was possible, should understand several Languages, if it was but only to read their Letters; they should also know something of naval Architecture, or the Construction of a Ship, that they may be capable to judge of its Soundness, when it wants repairing, and when well repair'd; of the Goodness of the Rigging, &c.

The next Thing which a Merchant should be thoroughly acquainted with, are, the different Products of the several Countries he trades to; and to help our Pupils to acquire that Knowledge, I'll put here a Catalogue of all the Commodities which the several Parts of the World can supply him with, alphabetically digested; mentioning, likewise, under each Article,

ticle, the principal trading Port-towns of each Part of the World where a Ship is to put to; and beginning with

A F R I C A.

Note, That *Africa* is about 1200 Times as big as *England*; and the *Ile of Madagascar* is near twice as big as *England*.

The principal Towns of Trade, or Ports, in that Part of *Africa* call'd *Barbary*, are, *Sally*, *Morocco*, *Tangier*, *Fez*, *Ceuta*, *Algiers*, *Sancta Crux*, *Saphia*, *Tripoli*, and *Barca*. Along the Sea Coast between *Guinea* and the Cape of *Good Hope*, are, *St. James's Fort*, in the River *Gambia*, *Sierra Leona*, *Sherboro*, *Madre-bomba*, *Cape Miserado*, *Cormontyn*, *Emacham*, *Rio Nuno*, the *Ivory Coast*, *Widdab*, and *Cape Coast Castle* on the *Gold Coast*.

That Part of *Africa* between *Guinea* and the Cape of *Good Hope* produces, chiefly, *Gold Dust*, *Ambergrease*, *Guinea Pepper*, *Elephants Teeth*, *Civet*, *Oftrich Feathers*, *Amber*, *Ebony*, *Canes*, *Cocoa-nuts*, *Cloves*, *Saffron*, *Crytal*, and abundance of *Negroes*, which furnish all the Plantations of the *Europeans* in *America* with *Slaves*. The other Part, call'd *Barbary*, produces *Hides*, *Wax*, *Sanders*, *Sugar*, *Oil*, *Cordovans*, *Hemp*, *Flax*, *Dates*, *Almonds*, *Indico*, *Gum*, *Rice*, *Citrons*, *Lemons*, *Copper*, &c.

The Commodities exported out of *Europe* into *Guinea*, and from thence as far as the Cape of *Good Hope*, are, *Fire and other Arms*, *Knives*, *Hatchets*, and all Sorts of hard Wares, &c. *Tobacco*, *Brandy*, *Beads for Necklaces*, of all Sorts of Colours, *Shells*, call'd *Porcelains*, or *Zimbi's*, for *Coins*, &c. Those exported into *Barbary*, are, all Kinds of light woollen Manufactures, of all Colours; especially yellow, red, and green, &c.

The chief Towns of Trade in *Madagascar*, are, *Charamboue*, and *Fausbere*. *Madagascar* produces *Ginger*, *Cloves*, *Red Sanders*, *Saffron*, *Wax*, *Amber*, *Gum*, *Ebony*, *Crytal*, *Cocoa-nuts*, and *Metals*. The Commodities exported out of *Europe*, into those Places, are the same as those exported into *Guinea*, the *Shells* excepted.

A M E R I C A.

Note, That *America* is about 90 Times as big as *England*, and that it is divided into three Parts, viz. *North America*, the *Middle Part*, and *South America*.

The chief trading Towns, and Places, of *North America*, are, *Quebeck*, *Brest*, *Port Royal*, *Inquebet*, *Port Nelson*, *Hudson's Bay*, and *Padousack*. The principal Commodities of all these Places, are, *Bever*, and other rich Furs, *Whale-Oil*, *Stockfish*, &c.

The chief trading Places of the *Middle Part* of *America*, are, *Boston*, and *London*, in *New England*, *New York*, *Philadelphia* in *Pensylvania*, *Oxford* in *Maryland*; *James Town*, and *Wiccomoco*, in *Virginia*; *Charles Town* in *Carolina*, *Port Royal*, *Sevil*, and *St. Jago*, in *Jamaica*; *St. Domingo*, *Cape Francois*, *Port de Paix*, *Leogane*, &c. in the *Ile of St. Domingo*; *Port Royal*, &c. in *Martinico*; *Antego*, and *Barbadoes*, in the *Caribbee Islands*; and also *Porto Bello*, *Panama*, *Carthagena*, *Curasco*, *Caracco*, *Porto Rico*, *Acapulco*, *Mexico*, and *Vera Cruz*. The chief Commodities of all these Places, are, *Cotton-wool*, *Sugar*, *Tobacco*, *Furs*, *Indico*, *Ginger*, *Cloves*, *Mace*, *Nutmegs*, *Rosin*, *Turpentine*, *Copper*, *Tar*, *Deal Boards*, *Gold*, *Silver*, *Pearls*, *Cocoa-nuts*, *Cochineal*, *Honey*, *Balm*, *Amber*, *Hides*, *Tallow*, *Salt*, medicinal *Drugs*, and *Log-wood*.

The chief trading Towns of *South America*, are, *Caramanta*, *St. Maguel*, and *Morequinto*, in *Firm Land*; *Posion*, *Cusco*, *Lima*, *Gucaquil*, *Buesu*, and *Creux de Nueva*, in *Peru*; *St. Salvador*, *St. Vincent*, and *St. Sebastian*, in *Brasil*; *Assumption*, *Conception*,

Villa Rico, and *Cividda*, in *Paraguay*; and *St. Jago*, *Mondoc*, and *Serona*, in *Chili*. The principal Commodities of those Places, are, beside *Venison*, *Fish* and *Fowl*, *Gold* and *Silver* in abundance, *Balsam*, *Precious Stones*, *Long Pepper*, *Gums*, *Rosin*, *Drugs*, *Cottons*, *Tobacco*, *Cochineal*, *Brasil-wood*, *Sugar*, *Train-Oil*, *Brass*, *Iron*, *Copper*, and *Honey*.

The chief Commodities exported out of *Europe* into *America*, are, all Sorts of *European Manufactures*, as *Woollen and Linnen Cloth*, *Hats*, *Stockings*, *Gloves*, &c. *Fire and other Arms*, *Toys*, &c. besides *Meal*, *Wine*, &c.

A R A B I A.

Note, That this Country is about 15 Times as big as *England*, and borders South-west on the *Red Sea*, where the Children of *Israel* pass'd thro' on dry Land.

The chief Towns of Trade in *Arabia*, are, *Medina*, *Mecca*, *Aylan*, *Heratt*, *Janama*, *Ziden*, and *Dbasar*. *Arabia* produces, chiefly, *Gold*, *Precious Stones*, *Coffee*, *Cinnamon*, *Myrrh*, *Balm*, *Frankincense*, *Olibanum*, *Benzoin*, *Storax*, *Manna*, *Cassia*, &c. The chief Commodities exported out of *Europe* into *Arabia*, are; *Woollen Manufactures* particular for that Country.

C H I N A and T O N Q U I N.

Note, That *China* is about 18 Times as big as *England*, and is said to contain 1885 Cities.

The chief Towns of Commerce in *China*, are, *Pekin*, *Cachao*, *Kianguing*, *Hangchen*, *Cinan*, *Hean*, *Danea*, and *Quangchen*. *China* produces *Gold*, *Silver*, *Precious Stones*, *Porcelaine*, *China Ware*, *Quicksilver*, *China Wood*, *Sugar*, *Cottons*, *Silks*, *Camphor*, *Rhubarb*, *Civet*, *Musk*, and *Ginger*. The chief Commodity exported into *China*, is *Money*.

E A S T - I N D I E S.

Note, That the *East-Indies*, i. e. the *Mogul's Empire*, is about 19 Times as big as *England*.

The chief Places of Commerce (on this Side of the Peninsula, or nearest Part of *India*, on the *Malabar Coast*) are, *Surat*, *Bombay*, *Cambay*, *Goa*, and *Daman*; and on the further Side of the Peninsula, on the *Coromandel Coast*, &c. the chief Towns are, *Fort St. George*, *Bissuagar*, *Maliapur*, *Negapitan*, *Hugbley*, *Balescar*, and *Agra* the Seat of the *Great Mogul*; also, *Alchin*, *Benconli*, and *Indrapore*, *English Factories*, on the Coast of the Island of *Sumatra*; which, tho' near, are not in the Territories of the *Mogul*.

The *East-Indies* produce *Callicoes*, *Canes*, *Cottons*, *Velvets*, *Silk*, *Tassata's*, *Carpets*, *Muslin*, *Indico*, *Aloes*, *Sattins*, *Saltpetre*, *Spices*, *Amber*, *Borax*, *Ambergrease*, *Rhubarb*, *Wormseed*, *Sal Ammoniack*, *Rice*, *Tea*, *Fans for Women*, *Cornelian Rings*, *Agates*, *Rough Diamonds*, *Pearl*, *China Ware*, *Cocoa-nuts*, *Cinnamon*, *Ginger*, *Pepper*, *Cassia*, *Gold* and *Silver*, *Porcelaine Earth*, *Bengals*, and *Alabaster*. The chief Commodity imported into *India*, is *Money*.

E N G L A N D, or G R E A T - B R I T A I N.

Note, That *Great-Britain* contains 38 Counties of *England*, 16 Counties of *Wales*, and 35 of *Scotland*.

The chief Cities, or Towns, of Commerce, in *Great-Britain*, are, *London*, *Bristol*, *Liverpool*, *Newcastle*, *Hull*, *Plymouth*, and *Norwich*, in *England*; *Edinburgh*, *Aberdeen*, *St. Andrews*, *Glasgow*, and *Leith*, in *Scotland*.

England produces, chiefly, very fine, and great abundance of *Sheep's Wool*; as that of *Herefordshire*, *Leic.*

Leicestershire, the Isle of Wight, Devonshire, Gloucestershire, Yorkshire, &c. Stuffs, as those of *Norwich* Crapes, Grograms, Barateens, Camlets, Calamanco's, Anterines, Paragons, &c. of *Exeter*, as Says, Sem-peternums, Perpetuano's, &c. Druggets, Serges, Fustians, Bays, Silks, Velvets, Sattins, Flannels; Leather, Tin, Copper, Lead, Allum, Copperas; Hops, Cheese, Tobacco-pipes, Bricks, Lime, Soap, Pot-Ashes, Glass, and Saffron; Sea-Coal and Scots-Coal, in the North call'd Cannel; Beer, and Ale. The chief Commodities imported into *England*, are, a great deal of *Portugal* and *Spanish* Coins, Raw Silk, Wine, Brandy, Linnen Cloth, Oil, Currants, Raisins, Marble, &c.

F R A N C E.

Note, That *France* is near 4 Times as big as *England*, and contains 12 Governments, besides the Dutchy of *Lorrain*, and the *French* County.

The chief Towns, or Places of Commerce, in *France*, are, *Nantz*, *St. Malo*, *Port Louis*, or *Lorient*, *Morlaix*, *Rochele*, the *Isle of Ré*, *Havre de Grace*, *Bourdeaux*, *Dunkirk*, &c. on the Ocean; and *Marseilles*, *Toulon*, *Antibes*, &c. on the *Mediterranean*.

France produces Wines, Paper, Almonds, Coral, Linnen Cloths, Salt, Brandy, Silks, Velvets, Buckrams, Glass, Wheat, and all Kinds of Grain, Rosin, Pruans, &c. The chief Commodity imported into *France*, is Money.

G E O R G I A in A S I A.

Note, That *Georgia* is 3 Times as big as *England*.

The chief Towns of Commerce in *Georgia*, are, *Tetlis*, *Sophia*, and *Zittach*.

Georgia produces Bevers, Martins, and other Furs; Leather, Wax, Linnen, Thread, and Honey.

G E R M A N Y.

Note, That *Germany* is more than 3 Times as big as *England*, and is divided into 10 Circles.

The chief Cities, or Towns of Commerce, in *Germany*, are, *Vienna*, *Noremberg*, *Quedlinburg*, *Brunschwick*, *Emden*, *Strasburgh*, *Frankfort*, and *Cologne*.

Germany produces, chiefly, Wool, Steel, Latten, and Iron Ware, Fustians, Lead, Copperas, Allum, Hams, Linnen Cloth, Yarn, Paper, Bell-metal, Quicksilver, Mum, Rhenish Wine, Tin, and Iron Work. The chief Commodity imported into *Germany*, is Money.

I R E L A N D.

Note, That *Ireland* is about 3 Fifths of *England*, and contains 32 Counties.

The chief trading Towns, and Places, in *Ireland*, are, *Dublin*, *Kinsale*, *Galloway*, *Limerick*, *Drogheda*, and *Cork*.

Ireland produces Wool, Yarn, Flax, Linnen Cloth, Furs, Hides, Tallow, Hemp, Honey, Wax, Herrings, and many other Sorts of Fish; Frizes, Rugs, Salt Beef, Pipe-Staves, Cattle, black and white; Butter, Cheese, Salt, Wheat, and most other Grains; Iron, and Lead. The chief Commodities imported into *Ireland*, are, Money, Wine, Brandy, &c.

I T A L Y.

Note, That *Italy*, including the Republick of *Venice*, and the Isles, is as big as 1 and a Half of *England*, and is divided into 12 Provinces, besides the Isles of *Sicily*, *Sardinia*, and *Corfica*.

The chief Towns, or Places of Commerce, in *Italy*,

are, *Leghorn*, *Venice*, *Genoa*, *Naples*, *Messina*, *Palermo*, &c.

Italy produces Sarsenets, Velvets, Taffata's, Fustians, Cloth of Gold and Silver, Wine, Cottons, Currants, Rice, Raw Silk, Allum, Vitriol, fine Glass, Grograms, Thrown Silk, Sattin, Corn, Marble, Oil, &c. The chief Commodities imported into *Italy*, are, all Kinds of Woollen Manufactures, especially Broad Cloath, Hats, Stockings, &c. also all Kinds of Linnen Manufactures, &c.

L O W C O U N T R I E S, or 17 P R O V I N C E S.

Note, That the *Low Countries* are about 1 Third of *England*.

The chief Cities, Towns, or Places of Commerce, in the *Low Countries*, are, *Amsterdam*, *Rotterdam*, *Ostend*, *Bruges*, *Antwerp*, and *Middleburg*.

The *Low Countries* produce, chiefly, Tapestry, fine Linnen, Silks, Velvets, Ropes, Butter, Cheese, Buff, Leather, Ox-Hides, Armour, *Bruges* Thread, Chimney-backs, Steel, Hops, Brushes, Grograms, Camlets, fine Tape, Bottles, Pots, large Horses, Soap, Sword-blades, &c. The Commodities imported into the *Low Countries*, are, chiefly, Money, Wine, Brandy, Salt, Oil, &c.

P O L A N D.

Note, That *Poland* is about three Times as big as *England*.

The chief trading Towns of *Poland*, are, *Dantzick*, *Wilna*, *Warsaw*, *Cracow*, and *Bresle*.

Poland produces, chiefly, Masts for Ships, Linnen, Pitch, rich Furs, Wax, Rosin, Soap, Corn, Amber, Ashes, Milk, Butter, Cheese, &c. The chief Commodities imported into *Poland*, are, Money, Woollen Manufactures, as Cloth, Stockings, Hats, and also Silks, Velvets, &c.

R U S S I A, or M U S C O V Y.

Note, That *Russia* is 12 Times as big as *England*, and is divided into 17 Provinces; but a great Part of it is uninhabited.

The chief Towns of Commerce in *Russia*, are, *Moscow*, *Archangel*, *Petersbourg*, *Riga*, &c.

Russia produces, chiefly, fine Leather, Furs, Martins, Sables, Train Oil, Wax, Honey, Slad, Hemp, Flax, Iron, Saltpetre, Brimstone, &c. The principal Commodities imported into *Russia*, are, all Kinds of Woollen Manufactures, Wine, Brandy, &c.

S P A I N and P O R T U G A L.

Note, That *Spain* is more than twice as big as *England*, and is divided into 20 Kingdoms or Provinces.

The principal Places for Commerce in *Spain* and *Portugal*, are, *Bilboa*, *Cadiz*, *Lisbon*, *Gallicia*, *Barcelona*, *Malaga*, *Sevil*, *Oporto*, &c.

Spain and *Portugal* produce, chiefly, Wine, Wool, Madder, Sugar, Oil, Almonds, Anchovies, Anniseed, Figs, Raisins, Bayberries, Oranges, Lemons, Saffron, Soap, Iron, Allum, white Marble, Liquorice, Shumack, Cork, Woad, Rice, Silk, and Lamb-Skin. The principal Commodities imported into *Spain* and *Portugal*, are, all Kinds of Woollen and Linnen Manufactures.

S W E D E N, N O R W A Y, D E N M A R K, and Places about the Baltick.

Note, That *Sweden* is twice as big as *Denmark*, and, together, they are more than four Times as big as *England*, and contain 13 Provinces, or Parts.

The

The chief Places of *Commerce* in these Kingdoms; are, *Hamburgh, Copenhagen, Stockholm, Wibourg, Sleswick, Lubeck, Bergen, Calmar, Abo, Nottemburgh, Bremen, Narva, Leipfick, and Riga.*

Sweden, Denmark, and Places adjacent, produce; Ox-Hides, Goat and Buck-Skins, rich Furs, Metals, Oak, Fir, Honey, Tallow, Bow-Staves, Ashes, Cables, Canvas, Masts, Deal and Clapboards, Pitch and Tar, Cordage, Ropes, Hemp, Flax, Linnen, Yarn, Stockfish, Wax, Wainfscote, Wheat, Rye, &c. The Commodities imported into those Places, are, chiefly, Money, Wine, Brandy, Salt, &c.

T A R T A R Y.

Note, That Tartary is the biggest Empire in the World, being 70 Times as big as England; though the North-East is little known.

Tartary produces, chiefly, rich Furs, as Sables and Martins, Musk, Cinnamon, Silk, Flax, Camblets, Rhubarb, and other Drugs.

T U R K E Y in A S I A.

Note, That Turkey in Asia is about 6 Times as big as England, and is divided into three Parts, Natolia, Syria, and Armenia; and they subdivided into 19 Beglerbegs, besides the Isles of Cyprus, Rhodes, &c.

The chief trading Towns of *Turkey in Asia*, are, *Aleppo, Scanderoon, Smyrna, Famagusta in Cyprus, Maraz, Acfar, Bursa, Tarso, Cogni, Amasia, Acra, Siam, Tripoli, Schame, Damat, Gaza, Jerusalem, Erzerum, and Balsora.*

Turkey in Asia produces Raw Silk, Cotton Wool, Drugs, as Opium, Galls, Rhubarb, &c. Soap, Camblets, Tapestry, excellent Balm, Wine, Oil, Cotton Yarn, Mohair, Honey, Goats Hair, Worsted, Box Wood, and many other Commodities of lesser Note.

T U R K E Y in E U R O P E.

Note, That Turkey in Europe is about 5 Times as big as England, and contains 18 Provinces.

The chief Towns for *Commerce in Turkey in Europe*, are, *Nipoli, Nisithra, Corfu, Salonicha, Belgrade, Adrianople, Setines, and Bialogrod, or Badizlack.*

Turkey in Europe produces, chiefly, Wine, Oil, Metals, Damasks, Velvets, Vitriol, Sulphur, and Turkey Grogam. The principal Commodities imported into Turkey, are, Woollen Manufactures of a particular Make, and dy'd yellow, green, red, &c.

Although our Merchant be thus very well acquainted with all the chief Products of the several Countries the known inhabited World is divided into; he must, also, perfectly know which, among so infinite a Number of different Sorts of Merchandizes, can best serve his Purposes, and are of greatest Request in the Places he wants to dispose of them; in order to have a quick Return of his Money; and thereby, having always a sufficient Fund by him to carry on his *Commerce*, without Intermision, be capable to lay hold of all Bargains which Merchants are often forced to let slip, for want of ready Cash, unless they borrow it at an extravagant Interest, which lessens much their Gain.

A Merchant must likewise, before he can be entirely qualify'd to trade in either of those Countries, know the different Species, or Coins of those Countries, their Weights, Measures, &c.

As for the real Coins of the several Countries of the World, and their Value, we have already mention'd them, in so particular and exact a Manner, and so well circumstanced, in the preceding Article of *Coining*, that it would be needless to repeat it here; but as Merchants use as often *imaginary Money*, as real Coins, we must inform our Pupils what *imaginary Money* is, and how it is used.

IMAGINARY MONEY, call'd, also, *Money of Account*, is that which has never existed, or, at least, which does not exist in real Species, but is a Denomination invented, or retain'd, to facilitate the stating of Accounts, by keeping them still on a fix'd Footing, not to be chang'd like current Coins, which the Authority of the Sovereign raises, or lowers, according to the Exigency of State: Of which Kind are *Pounds, Livres, Maravedi's, &c.*

Boissard says, that *Money of Account* is a Sum of Money, or a certain Number of Species, which may change in Substance and Quantity, but never in Quality. Thus, fifty Pounds consists of fifty Pieces call'd *Pounds*, which are not real, but may be paid in several real Species, as in *Guineas, Crowns, Shillings, &c.* which are changeable, as *Guineas, v. gr.* which are sometimes higher, sometimes lower.

Almost every Nation has its different *imaginary Money*, or Manner of reckoning Money; I say almost every Nation, for the *Americans* have none; the respective *Money of Account* of the *Europeans*, who have there made Settlements, being establish'd with them. As to *Africa*, the Cities of *Barbary* and *Egypt*, whether the *Europeans* traffick, reckon much after the same Manner as in the *Levant*, and in the Dominions of the *Grand Seignior*; for the rest throughout the vast Extent of the Coast of *Guinea*, where the *Europeans* trade for *Negroes, Gold-Dust, Elephants Teeth, Wax, Leather, &c.* either the miserable Inhabitants do not know what *Money of Account* is, or if they have any, it is only what Strangers, settled among them, have introduc'd. Therefore I'll confine myself to the *Money of Account* in *Asia*, and in *Europe*; taking, however, some Notice of the *Macoute*, and the *Piece*, which are the *Money of Account* used in some Parts of *Africa*.

The *Money of Accounts* used in *Asia*, are, the *Turkish, Persian, Chinese, Japonese, Mogul, &c. Money of Accounts.*

The *Turks*, both in *Europe, Asia, and Africa*, account by Purfes either of Silver or Gold, (the last only used in the *Seraglio*) with Half Purfes of Gold, call'd, also, *Rizes*. The Purse of Silver, equal to 150 *French Livres*, or 112*l.* 10*s.* *Sterling*, the Half Purse in Proportion; the Purse of Gold 15000 Sequins, equal to 30000 *French Crowns*, or 6750 *Pounds Sterling*, seldom used but for Presents to Favourites; so that a Purse simply signifies a Purse of Silver, or 1500 *Livres*. They are call'd *Purfes*, because all the Money in the Treasury of the *Seraglio* is kept in leathern Bags, or Purfes, of those Contents. The Merchants, also, use *Dutch Dollars*, call'd *Astiani*, or *Abouquets*, with *Meideins*, and *Aspres*; the Dollar equal to 35 *Meideins*, and the *Meidein* to 3 *Aspres*, the *Aspre* to $\frac{1}{2}$ *Sterling*.

In *Persia* they account by the *Toman*, (call'd, also, *Man*, and *Tumein*) and the *Dinar-bisti*. The *Toman* is composed of 50 *Abassi's*, or 100 *Mamodi's*, or 200 *Chapes*, or 10000 *Dinars*; which, accounting the *Abassi* on the Foot of 18 *French Sols*, or the *Dinar* on that of a *Denier*, amounts to 3*l.* 12*s.* 6*d.* *Sterling* the *Toman*. They also account by *Larins*, especially at *Ormus*, and on the Coasts of the *Persian Gulph*; the *Larin* equivalent to 11*d.* *Sterling*, and on that Footing used also in *Arabia*, and a great Part of the *East-Indies*.

In *China* the *Money of Accounts* are, the *Pic, Picol, and Tael*; which, though, in Effect, Weights, do likewise serve as *Money of Accounts*, obtaining in *Tonquin*, as well as *China*. The *Pic* is divided into 100 *Cati's*, some say 125; the *Cati* into 16 *Taels*, each *Tael* equal to 1 Ounce 2 Drachms; the *Picol* contains 66 *Cati's*; the *Tael* equivalent to 6*s.* 8*d.* *Sterling*.

Japonese Money of Accounts are, the *Sbuites, Cockeins, Oebans, or Oubans, and Taels*. Two hundred *Sbuites* are equal to 500 *Dutch Pounds*; the *Cockein* equal to 10 *Low Country Pounds*; 1000 *Oebans* make 45000 *Taels*.

At *Surat, Agra*, and the rest of the *Estates* of the *Great Mogul*, they use, for *Money of Accounts*, *Lacres, Acres,*

Aers, or *Leeths*; implying an hundred thousand: Thus, a *Lacre* of *Rupees* is 100000 *Rupees*, the *Lacre* being nearly on the Footing of the Million in *France*, or the Tun of Gold in *Holland*.

Throughout *Malabar*, and at *Goa*, they use *Tanga's*, *Vintins*, and *Pardos Xeraphin*. The *Tanga* is of two Kinds, viz. of good and bad Alloy; hence their Custom is, to count by good or bad Money. The *Tanga* of good Alloy is $\frac{1}{2}$ better than the bad, so that 4 *Tanga's* good Alloy being allow'd the *Pardos Xeraphin*, there will be requir'd 5 of the bad. Four *Vintins* good, make a *Tanga*, likewise, good; 15 *Baruco's* a *Vintin*; the good *Baruco* is equal to a Portuguese *Ree*, a French *Denier*, or $\frac{1}{12}$ of a Penny *Sterling*.

In the Island of *Java* they use the *Sonta*, *Sapacou*, *Fardos*, and *Catis*; which last Money, together with the *Leeth*, or *Lacre*, is much used throughout all the *East-Indies*. The *Santa* is 200 *Caxa's*, or those little Pieces hung on a String, mention'd in our *Treatise of Coining*, and is equal to $\frac{1}{12}$ of a Penny *Sterling*; 5 *Santa's* make the *Sapacou*; the *Fardos* equal to 2 s. 8 d. *Sterling*; the *Cati* contains 20 *Taels*, the *Tael* 6 s. 8 d. *Sterling*.

There are Islands, Cities, and States of the *East-Indies*, whose Money of Accounts is not here expressed, partly because reducible to some of those abovemention'd; and partly because we find no certain consistent Account of them in any of the Authors or Memoirs herein consulted.

The Money of Accounts used in *Europe*, are, the French, English, Spanish, Italian, Sicilian, Polish, German, Dutch, Swedish, Danish, and Muscovite Money of Accounts.

The French Money of Account was antiently the *Paris*, *Tournois*, and the *Ecu*, or Crown; but since the Ordonnance of 1667, they only reckon by *Livres*, i. e. Pounds; *Sols*, i. e. Shillings; and *Deniers Tournois*, i. e. Pence. The *Livre* 20 *Sols*, or $\frac{1}{2}$ of the *Ecu*, or Crown; the *Sol* 12 *Deniers*. The *Maille*, *Obole*, or Halfpenny *Tournois*, is also, now, a Money of Account, though antiently a real Coin. The *Maille* is divided into two *Pits*, and each *Pit* into two *Semi-pits*, all Money of Accounts; to which must be added, the *Franc*, of the same Value with the *Livre*, viz. 20 *Sols Tournois*; and the *Blanc*, 5 *Deniers Tournois*; and the *Carolus* 10; all three antiently real Coins.

In *ENGLAND* they account by Pounds, Shillings, and Pence, *Sterling*; the Pound containing 20 Shillings, and the Shilling 12 Pence.

In *SPAIN* the Money of Accounts are, the *Peso*, *Ducat* of Silver, and *Vellon*, *Rial* of Vellon, and *Cornado's* and *Maravedi's* of Silver and Vellon. The *Peso* is to the *Ducat* as 12 to 10; the *Ducat* of Silver contains 11 *Rials* of Silver; and that of Vellon, 11 *Rials* of Vellon; which makes a Difference of near one Half; the Silver *Rial* being current for 7 s. *Sterling*, and that of Vellon only at 3 s. 8 d. *Sterling*; 34 *Maravedi's* make the *Rial* of Vellon; and 63 that of Silver; the *Maravedi* is divided into 4 *Cornado's*.

In *ITALY* the Money of Accounts are various, almost as the Cities of Commerce. At *ROME* they account by Pounds, Shillings, and Pence, of Gold di *Stampa*. At *VENICE*, by *Ducats*, and *Gros di Banco*; the *Ducat* divided into 24 *Gros*, each *Gros* equal to 2 $\frac{1}{2}$ d. *Sterling*; and by *Ducat's* current, call'd also *Sequins*, equal to 9 s. 2 d. *Sterling*; and by Pounds, Shillings, and Pence. At *LUCCA*, and *BERGAMO*, they use the four last, and only the three last at *Bologna*, *Mantua*, and *Savoy*. In *GENOVA*, besides Pounds, Shillings, and Pence, they account also by *Florins*, containing 6 *Soldi's*, or 6 $\frac{1}{2}$ d. *Sterling*. At *LEGHORN* and *GENOA*, besides Pounds, Shillings, and Pence, they account by *Piasters*, equal to 4 s. 6 d. *Sterling*. At *NOVA* their Money of Accounts are, *Crowns*, *Shillings*, and Pence of Gold *Marc*; at *RAONIS*, Pounds, Shillings, and Gros; at *ANCONA*, *Crowns*, *Shillings*, and Pence; at *NAPLES*, *Ducats*, *Grains*, and *Tarins*, equal to 1 s. *Sterling*, divided into 20 Grains.

At *MESSINA*, *Palermo*, and throughout *Sicily*, they account by Pounds, Ounces, Tarins, Grains, and Pi-

coli's; which are summ'd by 30, 20, and 6; the Ounce being 30 *Tarins*, the *Tarin* 20 Grains, and the Grain 6 *Picoli's*. At *MALTA* they account by Pounds, Ounces, *Carlins*, and Grains; the Ounce 30 *Tarins*, or 60 *Carlins*, or 600 Grains; the *Carlin* equal to 6 $\frac{1}{2}$ d. *Sterling*.

Throughout *POLAND*, most of the Dominions of the King of *Prussia*, and *Danzick*, they account by *Rixdollars*, *Roups*, and *Grochs*; the *Rixdollar* equal to 4 s. 6 d. *Sterling*, and divided into 32 *Roups*; and again, in the *Prussian Territories*, into 24 *Grochs*; in *Poland*, into 90 *Grochs*. Sometimes they use the *Florin*, *Groch*, and *Penin*.

In *SWITZERLAND*, and many of the chief Cities of Germany, particularly *Francfort*, they account by *Florins*, (but on a Footing different from that of *Holland*) *Creuxes*, or *Crutzers*, and *Pennins*; the *Florin* equal to 3 s. *Sterling*, and divided into 60 *Creux*, or *Kreutz*, and the *Creux* into 8 *Pennins*. In others, as *Hambourg*, *Berlin*, &c. by *Rixdollars*, *Marks Lubs*, *Schellings Lubs*, and *Deniers Lubs*; the *Rixdollar* and *Dollars* on the Foot of the French Crown, or 4 s. 6 d. *Sterling*, divided into 3 *Marks*, the *Mark* into 16 *Schellings*, and the *Schelling* into 12 *Pennins*. At *Hambourg* they also use the *Livre*, *Schelling*, and *Denier de Gros*. At *Ausbourg*, and *Bolzamont*, they account by *Dollars* and *Creuxes*; the *Dollar* equal to 4 s. 6 d. *Sterling*, divided into 90 *Creuxes*. At *Nambourg*, by *Rixdollars*, *Gros*, and *Fenens*; the *Rixdollar* equal to 4 s. 6 d. *Sterling*, divided into 36 *Gros*, and the *Gros* into 12 *Fenins*. At *STRASBOURG*, by *Florins*, *Creux*, and *Pennins*; the *Florin* equal to 1 s. 6 d. *Sterling*, divided into 60 *Creuxes*, and the *Creux* into 8 *Pennins*.

In *HOLLAND*, *Zealand*, *Brabant*, and *Cologne*, they use the *Pundt*, or *Livre de Gros*; *Schelling*, or *Sol de Gros*; and *Penning*, or *Deniers Gros*. The *Pundt* containing 20 *Schellings*, and the *Schelling* 12 *Pennings*; the *Pundt* equal to 7 *Livres*, 4 *Sols*, French, or 10 s. $\frac{1}{3}$ *Sterling*. They also account by *Florins*, or *Guilders*, *Patards*, and *Pennings*; the *Florin* is equal to $\frac{1}{2}$ of the *Pundt*, or 20 *Patards*; and the *Patard* 12 *Pennings*: The Merchants use each Method of accounting, indifferently.

In *SWEDEN* they account by *Dalles*, equal to 32 *Sols Lubs*, or 3 s. *Sterling*. In *DENMARK* by *Rixdollars*, and *Stivers*, the *Rixdollar* divided into 48 *Stivers*. In *MUSCOVY* they account by *Roobles*, *Altins*, and *Grifs*, or *Grives*; the *Rooble* equal to 100 *Copecs*, or 2 *Rixdollars*, or 9 s. *Sterling*, divided into 10 *Grifs*; 3 *Altins* and $\frac{1}{4}$ make the *Grif*, or 10 *Copecs*; the *Copec* at 13 d. $\frac{1}{4}$ *Sterling*.

From *CAPE VERD* in *Africa*, to the *Cape of Good Hope*, all Exchanges, and Valuations of Merchandizes, are made on the Foot of the *Macoute* and *Piece*; which though no Money of Accounts, (for those Barbarians having no real Moneys, need no imaginary ones to estimate them by) yet serve in lieu thereof. At *Loango de Boirie*, and other Places on the Coast of *Angola*, the Estimations are made by *Macoutes*; and at *Malinbo* and *Cabindo*, on the same Coast, the Negroes reckon by *Pieces*. Among the first, the *Macoute* is equivalent to 10; 10 *Macoutes* make 100; which, likewise, leaves us a Kind of imaginary Money, to estimate any Purchase, Exchange, &c. they fix on the one Side the Number of *Macoutes* requir'd, E. gr. for a Negro; on the other for how many *Macoutes* they agree to receive each Kind of Merchandise requir'd for the Negro; so that there are several Bargains made for one. Suppose, v. gr. the Slave be fix'd at 3500, this amounts to 350 *Macoutes*; to make up this Number of *Macoutes* in Merchandizes, they fix the Price of each in *Macoutes*; 2 *Plemish Knives*, for Example, are accounted 1 *Macoute*; a Copper Basin, 2 Pounds Weight, 3; a Barrel of Gunpowder 3, &c. For the *Piece*, it serves, in like Manner, to estimate the Value of Goods, Duties, &c. on either Side. Thus the Natives require 10 *Pieces* for a Slave; and the Europeans put, for Example, a *Musce* at 1 *Piece*, a *Piece* of *Salampoures Blue* at 4 *Pieces*, &c.

Having thus inform'd ourselves of the different *Money of Accounts* of all Nations, we must endeavour, next, to acquire, likewise, a perfect Knowledge of their different *Weights* and *Measures*, since it would be impossible to trade among them, with Safety, and in any wise to our Advantage, if we were to trust to their Probity for the Quantity of the Merchandizes we buy from them; since we are even oblig'd to use all the Precaution imaginable, to prevent being cheated by the very *Weights* and *Measures* we are thoroughly acquainted with. Therefore,

WEIGHT, in *Commerce*, denotes a Body of a known *Weight*, appointed to be put in the Ballance against other Bodies whose *Weight* is requir'd. Those *Weights* are usually of Lead, Iron, or Brass; though in divers Parts of the *East-Indies* they are common Flints, and in some Places a Sort of little Beans.

The Security of *Commerce* depending, in some Measure, on the Justness of these *Weights*, there is scarce any Nation but what has taken proper Measures to prevent the Falsification thereof. The surest Means are, the stamping, or marking them, by proper Officers, from some Original, or Standard, deposited where Recourse may be had to them. This Expedient is very antient, and many Authors are of Opinion, that what among the *Jews* was call'd *Shekel of the Sanctuary*, was not any particular Kind of *Weight* different from the common one; but a Standard, or original *Weight*, preserv'd by the Priests in the Sanctuary.

Thus, also, in *France*, the Standard *Weight* is kept under several Keys in the Cabinet of the *Cour des Monnoyes*; and in *England* in the Exchequer, by a particular Officer, call'd the *Clerk*, or *Comptroller of the Market*.

Most Nations, where there is any Thing of *Commerce* flourishing, have their particular *Weights*, and even sometimes different *Weights* in the different Provinces, and for the different Kinds of Commodities. This Diversity of *Weights* makes one of the most perplexing Articles in *Commerce*, but is irremediable.

The reducing of *Weights* of different Nations to one, is not only impracticable; but even the Reduction of those of the same Nation; witness those vain Attempts made for reducing the *Weights* in *France*, by so many of our Kings, *Charlemagne*, *Philip the Long*, *Louis XI*, *Francis I*, *Henry II*, *Charles IX*, *Henry III*, and *Louis XIV*.

There are as many different Sorts of *Weights*, throughout the whole known inhabited World, as there are different Nations, or Countries; and even some Countries have as many different *Weights* as they contain Provinces; especially those which are of a vast Extent, or which have been enlarg'd by new Acquisitions, or Conquests.

Weights are commonly divided into *antient* and *modern*, and these last subdivided into *foreign* and *domestick*.

Though *antient Weights* are, in some Measure, foreign to our Subject, it will not be improper to gratify our Curiosity, to take here some Notice of them, especially of the *Jewish* and *Roman Weights*, the one being often mention'd in the Scripture, and the other in *Prophane History*, and to reduce them both to *English Weights*.

The *Jewish Weights* were, the *Shekel*, *Manch*, and *Talent*.

<i>Shekels</i>		<i>Manches</i>		<i>Talent</i>
60	made	1		
3000	made	50	made	1

Reduced to English Troy Weight.

		lb.	oz.	pwt.	gr.
1 <i>Shekel</i> makes	—	00	00	09	02 $\frac{1}{2}$
1 <i>Manch</i>	—	02	03	06	10 $\frac{1}{2}$
1 <i>Talent</i>	—	113	10	01	10 $\frac{1}{2}$

The *Grecian* and *Roman Weights* were, the *Lentes*, *Siliqua*, *Obolus*, *Scriptulum*, *Drachma*, *Sextula*, *Sicilius*, *Duella*, *Uncia*, and *Libra*.

<i>Lentes</i>		<i>Siliqua</i>		<i>Obolus</i>		<i>Script.</i>		<i>Drach.</i>		<i>Sext.</i>		<i>Sicil.</i>		<i>Duel.</i>		<i>Unc.</i>		<i>Lib.</i>
4		1		1		1		1		1		1		1		1		1
12		3		2		2		1 $\frac{1}{2}$		1 $\frac{1}{2}$		1 $\frac{1}{2}$		1 $\frac{1}{2}$		1 $\frac{1}{2}$		1 $\frac{1}{2}$
24		6		4		4		2		2		2		2		2		2
72	made	18	made	6	made	3	made	1 $\frac{1}{2}$	made	1 $\frac{1}{2}$	made	1 $\frac{1}{2}$	made	1 $\frac{1}{2}$	made	1 $\frac{1}{2}$	made	1 $\frac{1}{2}$
96		24		8		4		2 $\frac{1}{2}$		2 $\frac{1}{2}$		2 $\frac{1}{2}$		2 $\frac{1}{2}$		2 $\frac{1}{2}$		2 $\frac{1}{2}$
144		36		12		6		3		3		3		3		3		3
192		48		16		8		4		4		4		4		4		4
576		144		48		24		6		6		6		6		6		6
6912		1728		576		288		96		72		48		36		12		1

Reduced to English Troy Weight.

		lb.	oz.	pwt.	gr.
The <i>Lentes</i> makes	—	0	0	0	0 $\frac{1}{2}$
<i>Siliqua</i>	—	0	0	0	0 $\frac{1}{4}$
<i>Obolus</i>	—	0	0	0	9 $\frac{1}{2}$
<i>Scriptulum</i>	—	0	0	0	18 $\frac{1}{4}$
<i>Drachma</i>	—	0	0	2	6 $\frac{1}{4}$
<i>Sextula</i>	—	0	0	3	0 $\frac{1}{2}$
<i>Sicilius</i>	—	0	0	4	13 $\frac{1}{2}$
<i>Duella</i>	—	0	0	6	1 $\frac{1}{2}$
<i>Uncia</i>	—	0	0	18	5 $\frac{1}{2}$
<i>Libra</i>	—	0	10	18	13 $\frac{1}{2}$

The Subdivisions of the *Roman As*, *Libra*, or Pound.

	<i>Uncie, or Ounces.</i>
1 <i>As</i> , or <i>Libra</i> , &c. contain'd	12
1 <i>Denus</i>	11
1 <i>Dextans</i>	10
1 <i>Dobrans</i>	9
1 <i>Bes</i>	8
1 <i>Septans</i>	7
1 <i>Semis</i>	6
1 <i>Quincunx</i>	5
1 <i>Triens</i>	4
1 <i>Quadrans</i>	3
1 <i>Sextans</i>	2
1 <i>Uncia</i>	1

The *Roman Ounce* is the *English Averdupoise Ounce*, which they divided into 7 *Denarii*, as well as 8 *Drachms*, and since they reckon'd their *Denarius* equal to the *Attick Drachm*, this will make the *Attick Weight* $\frac{1}{8}$ heavier than the correspondent *Roman Weight*.

Note, The *Grecians* divided their *Obolus* into *Chalci*, $\lambda\epsilon\pi\lambda\alpha$. Some, as *Diodorus* and *Suidas*, divided the *Obolus* into 6 *Chalci*, and every *Chalcus* into 7 $\lambda\epsilon\pi\lambda\alpha$; others divided the *Obolus* into 8 *Chalci*, and every *Chalcus* into 8 $\lambda\epsilon\pi\lambda\alpha$, or *Minuta*.

Modern Weights are divided, as we have already observ'd, into *foreign* and *domestick Weights*. *Domestick Weights* are those of the Country we live in, as the *English Weights*, with Respect to us who live in *England*, and all other *Weights* are consider'd by us as *foreign*. Though by the 27th Chapter of *Magna Charta* the *Weights* are to be the same all over *England*, there are, notwithstanding, two different Sorts of *Weights* for different Sorts of Commodities, *viz.* *Troy Weight*, and *Averdupoise Weight*; both these *Weights* having their Origin from the Grain of Wheat, gather'd in the Middle of the Ear.

In *Troy Weight*, 24 of these Grains make a *Pennyweight Sterling*; 20 *Pennyweights* make an *Ounce*; and 12 *Ounces* a *Pound*. By this *Weight* the *English* weigh Gold, Silver, Jewels, Grains, and Liquors.

The

The Apothecaries, also, use the *Troy Pound*, *Ounce*, and *Grain*; but they differ from the rest in the intermediate Divisions: For they divide the *Ounce* into 8 *Drachms*, the *Drachm* into 3 *Scruples*, and the *Scruple* into 20 *Grains*.

In *Averdupoise Weight* the *Pound* contains 16 *Ounces*, but the *Ounce* is less, by near $\frac{1}{16}$, than the *Troy Ounce*; this latter containing 480 *Grains*, and the former only 448. The *Ounce* contains 16 *Drachms*; 80 *Ounces* *Averdupoise* are only equal to 73 *Ounces Troy*; and 17 *Pounds Troy* equal to 14 *Pounds Averdupoise*. By *Averdupoise Weight* are weigh'd Mercury, Grocery Wares, base Metals, Wool, Tallow, Hemp, Drugs, Bread, &c.

A TABLE of Troy Weight used by Goldsmiths.

Grains.	Pwt.	Oz.	lb.
24 make	1	00	00
480	20 make	01	00
5760	240	12 make	01

A TABLE of Troy Weight used by Apothecaries:

Grains.	Scruple.	Drachm.	Oz.	lb.
20 make	1	00	00	00
60	3 make	01	00	00
480	24	08 make	01	00
576	288	96	12 make	01

A TABLE of Averdupoise Weight.

Scruples.	Drachms.	Oz.	P.	Quintal.	Tun.
3 make	1	00	00	00	00
24	8 make	01	00	00	00
384	128	16 make	01	00	00
43008	14336	1792	112 make	01	00
860160	286720	35840	2240	20 make	01

The Moneyers, Jewellers, &c. have a particular Class of *Weights* for Gold and Precious Stones, viz. *Carat*, and *Grain*; and for Silver, the *Pennyweight*, and *Grain*; the *Carat* consists of 4 *Grains*. Mint-men fix the highest Purity of Gold at 24 *Carats*, and the several Degrees are estimated from the Divisions thereof, viz. *Grains*: But it is to be observ'd, that what Care soever is taken in purifying Gold, to clear it from Dross, it can never be brought to 24 *Carats*, but still comes short, at least $\frac{1}{2}$ of a *Carat*, or a *Grain*; this *Grain* they call a *Sixteenth*, and this *Sixteenth* they subdivide into two *Eighths*, and each of those *Eighths* into two *Sixteenths*; on which Calculation, they say, Gold may be purify'd as far as the first *Sixteenth* of the second *Eighth*, but no further. Gold of 22 *Carats*, is that which has 22 Parts of fine Gold, and 2 of Silver, or other Metal; or that which in refining loses 2 Parts in 24 of its *Weight*. The Goldsmiths generally work in Gold of 22 *Carats*; by the Law of France they are prohibited from working in Gold below 23 *Carats*.

Carat fine, as above, is the 24th Part of the Goodness of a Piece of pure Gold.

Carat Price, is the 24th Part of the Value of an Ounce, or Mark of Gold. They also sometimes say, the *Carat Weight*, which is the 24th Part of the *Weight* of the Ounce, or Mark. Two *Troy Grains* make a *Carat Grain*.

The Moneyers have also a particular Subdivision of the *Grain Troy*, thus;

The	{ Grain	into	{ 20 Mites.
	{ Mite		{ 24 Droits.
	{ Droit		{ 20 Perets.
	{ Peret		{ 24 Blanks.

The Dealers in Wool have likewise a particular Set of *Weights*, viz. the *Sack*, *Weigh*, *Tod*, *Stone*, and *Clove*.

A *Sack* of Wool contains 2 *Weighs*, or 312 *Pounds*, *Averdupoise*; the *Weigh* 6 *Tod* and a Half; the *Tod* 2 *Stones*; the *Stone* 2 *Cloves*; and the *Clove* 7 *Pounds*; 12 *Sacks* make a *Last*, or 4368 *Pounds*.

In France they have different Sorts of *Weights* in their several Provinces; the common, or *Paris Pound*, is 16 *Ounces*, which is divided two Ways; the first Division is into 2 *Marks*; the *Mark* into 8 *Ounces*; the *Ounce* into 8 *Gros*; the *Gros* into 3 *Pennyweights*; the *Pennyweight* into 24 *Grains*; the *Grain* equivalent to a *Grain* of Wheat.

The second Division of the *Pound*, is into 2 *Half Pounds*; the *Half Pound* into 2 *Quarters*; the *Quarter* into 2 *Half Quarters*; the *Half Quarter* into 2 *Ounces*; and the *Ounce* into 2 *Half Ounces*.

The *Weights* of the first Division are us'd to weigh Gold, Silver, and the richer Commodities; and the *Weights* of the second Division for Commodities of less Value.

A TABLE of the Weights of the first Division.

Grains.	Pwt.	Gros.	Oz.	Marc.	L.
24 make	1	00	00	00	00
72	3 make	1	00	00	00
576	24	8 make	1	00	00
7008	192	64	8 make	01	00
9216	384	128	16	02 make	01

A TABLE of the Weights of the second Division.

Half Oz.	Oz.	Half Qr. P.	Qr. P.	Half P.	Pound.	Quintal.
2 make	1	00	00	00	00	00
4	2 make	1	00	00	00	00
8	4	2 make	1	00	00	00
16	8	4	2 make	1	00	00
32	16	8	4	2 make	1	00
3200	1600	800	400	200	100 make	01

At Lyons the City *Pound* is only 14 *Ounces*; so that 100 Lyons *Pounds* make only 88 *Paris Pounds*. Beside the City *Pound*, they have another at Lyons for Silk, containing 16 *Ounces*.

At Tholouse, and throughout the upper *Languedoc*, the *Pound* is 13½ *Ounces* of *Paris Weight*. At Marseille, and throughout *Provence*, the *Pound* is 13 *Ounces* of *Paris Weight*.

At Rouen, besides the *Paris Pound*, and *Marc*, they have the *Weight* of the *Vicomte*, which is 16½ *Ounces*, and $\frac{1}{2}$, of the *Paris Weight*.

The *Weights* enumerated under the Article of *English* and *French Weights*, are the same that are us'd throughout the greatest Part of *Europe*; only under somewhat different Names, Divisions, and Proportions,

Particular

Particular Nations have also certain *Weights* peculiar to themselves; as *Spain*, *Portugal*, *Italy*, *Germany*, *Flanders*, *Holland*, the *Hanse Towns*, *Sweden*, *Denmark*, *Muscovy*, *Turkey*, &c.

SPAIN has its *Arroba's*, containing 25 *Spanish Pounds*, or $\frac{1}{4}$ of the common *Quintal*; its *Quintal Macho*, containing 150 *Pounds*, or $1\frac{1}{2}$ of the common *Quintal*, or 6 *Arroba's*; its *Adarmi*, containing $\frac{1}{16}$ of its *Ounce*. And for *Gold*, it has its *Castilian*, or $\frac{1}{160}$ of a *Pound*; its *Tomin*, 12 *Grains*, or $\frac{1}{8}$ of a *Castilian*. The same are in Use in the *Spanish West-Indies*.

PORTUGAL has its *Arroba*, containing 32 *Lisbon Arratels*, or *Pounds*; *Savary* also mentions its *Farratelle*, containing 2 *Lisbon Pounds*; and its *Rottoli*, containing about 12 *Pounds*: And for *Gold*, its *Chego*, containing 4 *Carats*. The same are us'd in the *Portuguese East-Indies*.

ITALY, and particularly *Venice*, have their *Migliaro*, containing four *Mirres*; the *Mirre* containing 30 *Venice Pounds*; the *Saggio* containing a 6th Part of an *Ounce*. *GENOA* has five Kinds of *Weights*, whereby all Merchandizes are weighed at the Custom-House; *Cash-weights* for *Piasters* and other Species; the *Cantara* or *Quintal* for the coarsest Commodities; the large *Ballance* for raw *Silks*; and the small *Ballance* for the finer Commodities. *SICILY* has its *Rottolo* 32 and a half *Pounds* of *Messina*.

GERMANY, *Flanders*, *Holland*, the *Hanse-Towns*, *Sweden*, *Denmark*, *Poland*, &c. have their *Schippondt*, which at *Antwerp* and *Hambourg* is 300 *Pounds*; at *Lubeck* 320; and at *Coningsberg* 400 *Pounds*. In *Sweden* the *Schippondt* for *Copper* is 320 *Pounds*; and the *Schippondt* for *Provisions* 400 *Pounds*. At *Riga* and *Revel* the *Schippondt* is 400 *Pounds*; and at *Dantzick* 340 *Pounds*; in *Norway* 300 *Pounds*; at *Amsterdam* 300 *Pounds*, containing 20 *Lyspondts*, each weighing 15 *Pounds*.

In *Muscovy* they weigh their large Commodities by the *Bercheroff* or *Berkewits*, containing 400 of their *Pounds*. They have also their *Poot* or *Pood*, containing 40 *Pounds*, or $\frac{1}{10}$ of the *Bercherat*.

In *TURKEY*, at *Smyrna*, &c. they use the *Batman* or *Battman*, containing six *Occos*, the *Occo* weighing 3 *Pounds* $\frac{1}{2}$ *English*. They have another *Batman* much less, consisting as the former of six *Occos*; but the *Occo* only containing 15 *Ounces English*; 44 *Occos* of the first Kind make the *Turkish Quintal*; for the better Intelligence thereof here follows:

A TABLE of *Smyrna Weights reduced to English Weights.*

	<i>Smyrna Drams</i>	<i>English Drams</i>	<i>English l.</i>	<i>oz.</i>	<i>dr.</i>
	0.57 =	1.01 =	00	00	01
	1.00 =	1.753 =	00	00	01 $\frac{1}{2}$
	146.0 =	256.0 =	01	00	00
1 Rotto =	180 =	315 =	01	03	11
1 Occo of =	400 =	701 =	02	11	13
1 Occo of =	250 =	438 =	01	11	06
1 Occo of =	120 =	210 =	00	13	02
1 Quintal =	18000 =	31545 =	123	02	09
1 Quintal =	17600 =	30844 =	120	07	12
1 Battman =	2400 =	4207 =	16	06	15
1 Chique =	800 =	1402 =	5	07	10

By the *Occo* of 400 *Drachms* are weighed *Cloves*, *Mace*, *Pepper*, *Benzoin*, *Gum Arabic*, *Sea-horse Tooth*, *Galbanum*, *Ginger*, *Indigo*, *Gum Adragant*, *Ammoniac*, white *Cordelant*, *Scammony*, *Worm-seed*, *Cochineal*, *Sassa-parilla*, *Nutmegs*, *Cinnamon*, *Rhubarb*, *Senna* and *Cassia*.

By the *Occo* of 250 *Drachms* is weighed *Opium*, and by that of 120 *Drachms* *Saffron*.

There are two Sorts of *Quintals*; the first containing 45 *Occos* of 400 *Drachms* each, or 18000 *Smyrna Drachms*: By which *Quintal* are weighed *Gauls*, *Alum*, *Cotton*, *Yarn*, *Lead*, *Brazil-Wood*, *Valonia*, *Logwood*, *Steel*, *Sugar*, *Wax*, &c. The second *Quintal* contains 44 *Occos* of 400 *Drachms* each, or

17600 *Smyrna Drachms*, by which they weigh *Cotton-wool*, *Sheeps-Wool*, *Tin*, *Box-wood*, and *Animals*.

The *Battman* contains 6 *Occos* of 400 *Drachms* each, or 2400 *Drachms*, by which they weigh *Leggee*, *Ardas* and *Sherbafce-Silk*.

The *Chique* contains 2 *Occos* of 400 *Drachms* each, by which they weigh *Goats-Wool*.

At *CAIRO*, *Alexandretta*, *Aleppo*, and *Alexandria*, they use the *Rotto*, *Rotton*, or *Rottoli*. The *Rottoli* at *Cairo* and other Parts of *Egypt* is 144 *Drachms*; being somewhat over an *English Pound*. At *Aleppo* there are three Sorts of *Rottos*, the first 420 *Drachms*, making about 7 *Pounds English*, and serving to weigh *Cottons*, *Galls*, and other large Commodities: The Second is 624 *Drachms*, used for all *Silks* but white ones, which are weighed by the third *Rotto* of 700 *Drachms*. At *Seyda* the *Rotto* is 600 *Drachms*. The other Ports of the *Levant* not named here use some of these *Weights*, particularly the *Occo*, the *Rottoli* and *Rotto*.

To shew the Proportion of these several *Weights* to one another, we shall add a *Reduction* of the divers *Pounds* used throughout *Europe*, by which the other *Weights* are estimated to one Standard *Pound*, viz. of *Amsterdam*, *Paris*, and *Bourdeaux*; as calculated with great Accuracy, by M. *Ricard*, a *Frenchman*, and published in the Edition of his excellent *Traite de Commerce* in 1732.

Proportion of the *Weights* of the chief Cities in *Europe*, or those of *Amsterdam*.

An hundred *Pounds* of *Amsterdam* are equal to

108 <i>Pounds</i> of <i>Alicant</i> .	105 lb. and $\frac{1}{2}$ of <i>Liege</i> .
105 lb. of <i>Antwerp</i> .	114 lb. of <i>Lisle</i> .
120 lb. of <i>Archangel</i> , or three <i>Poedes</i> .	143 lb. of <i>Leghorn</i> .
105 lb. of <i>Arscbot</i> .	106 lb. and $\frac{1}{2}$ of <i>Lisbon</i> .
120 lb. of <i>Avignon</i> .	109 lb. of <i>London</i> <i>Averdu</i> - pois-weight.
98 lb. of <i>Basil</i> in <i>Switzerland</i> .	105 lb. of <i>Lovaine</i> .
100 lb. of <i>Bayonne</i> in <i>France</i> .	105 lb. of <i>Lubeck</i> .
160 lb. of <i>Bergamo</i> .	141 lb. and $\frac{1}{2}$ of <i>Lucca</i> , light Weight.
97 lb. of <i>Berg ap zan</i> .	116 lb. of <i>Lyons</i> , <i>City</i> - weight.
95 lb. $\frac{1}{2}$ of <i>Bergen</i> in <i>Norway</i> .	114 lb. of <i>Madrid</i> .
111 lb. of <i>Bern</i> .	105 lb. of <i>Malines</i> .
100 lb. of <i>Besançon</i> .	123 lb. and $\frac{1}{2}$ of <i>Marseilles</i> .
100 lb. of <i>Bilboa</i> .	154 lb. of <i>Messina</i> , light Weight.
105 lb. of <i>Bois le Duc</i> .	168 lb. of <i>Milan</i> .
151 lb. of <i>Bologna</i> .	120 lb. of <i>Montpelier</i> .
100 lb. of <i>Bourdeaux</i> .	125 <i>Bercheroffs</i> of <i>Muscovy</i>
104 lb. of <i>Bourg en Bress</i> .	100 lb. of <i>Nantz</i> .
103 lb. of <i>Bremen</i> .	106 lb. of <i>Nancy</i> .
125 lb. of <i>Breslaw</i> .	169 lb. of <i>Naples</i> .
105 lb. of <i>Bruges</i> .	98 lb. of <i>Nuremberg</i> .
105 lb. of <i>Brussels</i> .	100 lb. of <i>Paris</i> .
105 lb. of <i>Cadiz</i> .	112 lb. and $\frac{1}{2}$ of <i>Revel</i> .
105 lb. of <i>Cologne</i> .	109 lb. of <i>Riga</i> .
125 lb. of <i>Coningsberg</i> .	100 lb. of <i>Roche</i> .
107 lb. and $\frac{1}{2}$ of <i>Copenha-</i> <i>gen</i> .	146 lb. of <i>Rome</i> .
87 <i>Rottos</i> of <i>Constantino-</i> <i>ple</i> .	100 lb. of <i>Rotterdam</i> .
113 lb. and $\frac{1}{2}$ of <i>Dantzic</i> .	96 lb. of <i>Romen</i> <i>Vicomte</i> Weight.
100 lb. of <i>Dort</i> .	100 lb. of <i>St. Malo</i> .
97 lb. of <i>Dublin</i> .	100 lb. of <i>St. Sebastian</i> .
97 lb. of <i>Edinburgh</i> .	158 lb. and $\frac{1}{2}$ of <i>Saragoza</i> .
143 lb. of <i>Florence</i> .	106 lb. of <i>Seville</i> .
98 lb. of <i>Frankfort on the</i> <i>Maine</i> .	114 lb. of <i>Smyrna</i> .
105 lb. of <i>Gant</i> .	110 lb. of <i>Stetin</i> .
89 lb. of <i>Geneva</i> .	81 lb. of <i>Stockholm</i> .
163 lb. of <i>Genoa</i> <i>Cash-</i> weight.	118 lb. of <i>Tboloufe</i> and Upper <i>Languedoc</i> .
102 lb. of <i>Hambourg</i> .	151 lb. of <i>Turin</i> .
106 lb. of <i>Leiden</i> .	158 lb. and $\frac{1}{2}$ of <i>Valencia</i> .
105 lb. of <i>Leipsick</i> .	182 lb. of <i>Venice</i> , small Weight.

They

They have also different Weights in the several Parts of the *East-Indies*, viz. in *Persia*, the Dominions of the great *Mogul*, *China*, *Siam*, *Golconda*, *Visapour*, *Goa*, &c.

In *Persia* they use the *Battman*, or *Man*, which may be looked on as the common Weight of the *East-Indies*, though under several different Appellations. There were two Kinds of *Persian Battmans*; the one called *Cachi* or *Cherai*, which is the King's Weight; and the other *Battman* of *Tauris*, from the Name of one of the chief Cities of *Persia*. The first weighs, according to *Tavernier*, 13 Pounds 10 Ounces *English*; the second $6\frac{1}{4}$. According to Sir *J. Chardin*, the King's *Battman* is 13 Pounds 14 Ounces, and the *Battman* of *Tauris* $6\frac{1}{2}$.

The Divisions of the *Battman* are the *Ratel*, or a 16th; the *Derbem*, or *Drackm*, which is the 50th; the *Meschal*, which is half the *Derbem*; the *Dung*, which is the 6th Part of the *Meschal*, being equivalent to six *Carat-grains*; and lastly, the *Grain*, which is the 4th Part of the *Dung*. They have also the *Vakie*, which exceeds a little the *English Ounce*: The *Salt-Cheray*, equal to 1170th Part of the *Derbam*: And the *Toman* used to weigh out large Payments of Money without telling; its Weight is that of 50 *Abassis*.

Throughout the State of the *Great Mogul* they also use two Kinds of *Man*, viz. the King's *Man*, or Weight, and the *Man* simply. The first is used to weigh common Provisions, and contains 40 *Seers* or *Serves*, each *Seer* being a just *Paris Pound*. Though *Tavernier*, the Traveller, will have the *Seer* near a seventh less than the *Paris Pound*. The common *Man* used in the weighing of common Merchandize consists likewise of 40 *Seers*, but each *Seer* is only estimated at 12 *Paris Ounces*, or $\frac{3}{4}$ of the other *Seer*.

In *China* they use the *Pice* for large Commodities, which *Pice* is divided into 100 *Catis*, though some say into 125: The *Cati* into 16 *Taels*, each *Tael* equivalent to $1\frac{1}{2}$ of an *Ounce English*, or the Weight of one *Rial* and $\frac{1}{16}$, and containing 10 *Mafs* or *Masses*; and each *Mafs* 10 *Condrius*, so that the *Chinese Pice* amounts to 137 Pounds *English Averdupois*, and the *Cati* to 1 Pound 8 Ounces. The *Picol* for Silk containing 66 *Catis* and $\frac{3}{4}$: The *Bahar*, *Bahair*, or *Barr*, containing 300 *Catis*. *Tonquin* has all the same Weights as *China*. And the *Japonefe* have but only one Weight, viz. the *Catti*, which however is different from that of *China*, as containing 20 *Taels*.

In the Kingdom of *Siam* they use the *Pice*, which contains 2 *Schans* or *Cattis*; but the *Siamese Catti* is only half the *Japonefe*, the latter containing 20 *Taels*, and the former only 10; though some make the *Chinese Catti* only 16 *Taels*, and the *Siam* 8. The *Tael* contains 4 *Baats* or *Ticals*, each about a *Paris Ounce*; the *Baat* 4 *Selings* or *Mayons*; the *Mayon* 2 *Fouangs*; the *Fouang* 4 *Payes*; the *Paye* 2 *Clams*; the *Sanpaye* half a *Fouang*. It is to be observed that these are the Names of their Coins, as well as Weights; Silver and Gold being Commodities there sold as other Things by their Weights.

In the Isle of *Java*, and particularly at *Bantam*, they use the *Gantam*, which amounts to near 3 *Dutch Pounds*. In *Golconda* at *Visapour* and *Goa*, they have the *Furatelle*, containing 1 Pound 14 Ounces *English*: The *Mangalis*, or *Mangelin*, for weighing Diamonds and precious Stones; weighing at *Goa* 5 Grains, at *Golconda*, &c. $5\frac{1}{2}$ Grains, they have also the *Rotolo* containing $14\frac{1}{4}$ Ounces *English*; the *Metricol* containing the sixth Part of an Ounce; the *Vall* for *Piastres* and *Ducats*, containing the 73d Part of a *Rial*.

They have no other Weights in *America* than those of the *European Colonies* settled in those Parts, each Colony making Use of the Weights of the States, or Kingdoms of *Europe* they belong to. For as to the *Aron* of *Peru*, which weighs 27 Pounds, it is evidently no other than the *Spanish Arroba*, with a little Difference in the Name.

Few Places in *Africa* have any Weight, except *Egypt* and the Coasts of *Africa*, whose Weights are enumerated among those of the Ports of the *Levant*.

As to the Coasts beyond *Cape Verd*, viz. *Guinea*, *Congo*, to *Soffola*, *Mosambica*, &c. they have no Weights; only the *French*, *English*, *Portuguese*, and *Danes*, have introduced their own Weights in their respective Settlements. The Isle of *Madagascar*, indeed, has its particular Weights; but it has none that exceeds the *Drachm*; nor are they used for any Thing but Gold and Silver. Other Commodities they never weigh.

Thus far we have examined the different Weights used by all Nations, their Divisions and Subdivisions; and demonstrated them in so plain and intelligible a Manner, that it is almost impossible our Pupils should be mistaken in either of them; but as Measures are as essential to Commerce as Weight, and the Knowledge thereof as indispensably necessary to our Merchants, we must likewise enter into a strict Detail of the different Measures of those same Nations whose Weights we have examined; I mean of those Measures which have any Report to Commerce; for there are several other Measures which we'll refer to other Subjects, as being entirely Foreign to this.

MEASURE in Commerce denotes a certain Quantity; or Proportion of any Thing bought, sold, valued, or the like; therefore there are as many various Measures as there are various Kinds and Dimensions of the Things to be measured:

Measures are either *Antient* or *Modern*; *Foreign* or *Domestick*, *Dry* or *Liquid*.

Though the antient Measures are not used in our Commerce, and seems to be foreign to our present Purpose; nevertheless, as we have took some Notice of the antient Weights, we'll also take Notice of some of the antient Measures used in Commerce, particularly of the dry and liquid *Attic Measure*; the dry and liquid *Jewish Measure*, and the dry and liquid *Roman Measure*, which we'll reduce all to *English Measures*.

The Dry *Attic Measures* were the *Cochlearion*, *Cyathus*, *Oxubaphon*, *Cotyle*, *Xestes*, *Chionix*, and *Medimnus*.

Ten *Cochlearions* made a *Cyathus*; 15 *Cochliarions*, or $1\frac{1}{2}$ *Cyathus* made 1 *Oxubaphon*; 16 *Cochliarions*, or 6 *Cyathus*, or 4 *Oxubaphons* made 1 *Cotyle*; 120 *Cochliarions*, or 12 *Cyathus*, or 8 *Oxubaphons*, or 2 *Cotyles* made 1 *Xestes* or *Sextary*; 180 *Cochlearions*, or 18 *Cyathus's*, or 12 *Oxubaphons*, or 3 *Cotyles*, or $1\frac{1}{2}$ *Xestes* made a *Chionix*; 8640 *Cochlearions*, or 864 *Cyathus's*, or 576 *Oxubaphons*, or 144 *Cotyles*, or 72 *Xestes*, or 48 *Chionix* made a *Medimnus*.

These Measures are reduc'd to English thus:

	Pecks	Gall.	Pints	Sol.	Inches.
The Cochliarion make	0	0	$1\frac{1}{4}$	0	$276\frac{1}{2}$
The Cyathus	0	0	$1\frac{1}{2}$	2	$763\frac{1}{2}$
The Oxubaphon	0	0	$\frac{1}{8}$	4	$144\frac{1}{2}$
The Cotyle	0	0	$\frac{1}{2}$	16	579
The Xestes or Sextary	0	0	1	33	158
The Chionix	0	0	$1\frac{1}{2}$	15	$705\frac{1}{2}$
The Medimnus	4	0	1	3	501

The Liquid *Attic Measures* were the *Cochlearion*, *Cheme*, *Mystron*, *Concha*, *Cyathus*, *Oxubaphon*, *Cotyle*, *Xestes*, *Chos*, *Congius*, *Metretes*, *Amphora*.

Two *Cochlearions*, made 1 *Cheme*; $2\frac{1}{2}$ *Cochliarions*, or $1\frac{1}{4}$ *Chemes*, made 1 *Mystron*; 5 *Cochliarions*, or $2\frac{1}{2}$ *Chemes*, or 2 *Mystrons*, made 1 *Concha*; 10 *Cochliarions*, or 5 *Chemes*, or 4 *Mystrons*, or 2 *Concha's*, made 1 *Cyathus*; 15 *Cochliarions*, or $7\frac{1}{2}$ *Chemes*, or 6 *Mystrons*, or 3 *Concha's*, or $1\frac{1}{2}$ *Cyathus*, made 1 *Oxubaphon*; 60 *Cochliarions*, or 30 *Chemes*, or 24 *Mystrons*, or 12 *Concha's*, or 6 *Cyathus's*, or 4 *Oxubaphons*, made 1 *Cotyle*; 120 *Cochliarions*, or 60 *Chemes*, or 48 *Mystrons*, or 24 *Concha's*, or 12 *Cyathus's*, or 8 *Oxubaphons*, or 2 *Cotyles*, made 1 *Xestes*, or *Sextary*; 720 *Cochliarions*, or 360 *Chemes*, or 288 *Mystrons*, or 144 *Concha's*, or 72 *Cyathus's*, or 48 *Oxubaphons*, or 12 *Cotyles*, or 6 *Xestes*, made 1 *Chos*, or *Congius*; 8640 *Cochliarions*, or 4320 *Chemes*, or 3456 *Mystrons*, or 1728 *Concha's*, or 864 *Cyathus's*, or 576 *Oxubaphons*, or 144 *Cotyles*, or 72 *Xestes*, or 48 *Chionix* made a *Medimnus*.

or 72 Xestes, or 12 Chos, or Congius's, made a *Metretes*, or *Amphora*.

These Measures reduced to English Wine Measure.

	Gall.	Pints.	In.	Dec.
The <i>Cochilarion</i> makes	0	$\frac{1}{20}$	0	$356\frac{5}{8}$
<i>Cheme</i> ———	0	$\frac{1}{60}$	0	$712\frac{5}{8}$
<i>Mystron</i> ———	0	$\frac{1}{48}$	0	$89\frac{1}{8}$
<i>Concha</i> ———	0	$\frac{1}{24}$	0	$178\frac{1}{4}$
<i>Cyathus</i> ———	0	$\frac{1}{12}$	0	$356\frac{1}{2}$
<i>Oxubaphon</i> ———	0	$\frac{1}{8}$	0	$535\frac{1}{4}$
<i>Cotyle</i> ———	0	$\frac{1}{2}$	2	$141\frac{1}{2}$
<i>Xestes</i> ———	0	1	4	283
<i>Chos</i> ———	0	6	25	698
<i>Metretes</i> ———	10	2	19	626

The *Jewish Dry Measures* were, the *Gachal*, *Cab*, *Gomor*, *Seah*, *Epha*, *Letteeth*, and the *Chomes*, or *Coron*.

Twenty *Gachals* made 1 *Cab*; 36 *Gachals*, or 1 $\frac{1}{2}$ *Cabs*, made 1 *Gomor*; 120 *Gachals*, or 6 *Cabs*, or 3 $\frac{1}{2}$ *Gomors*, made 1 *Seah*; 360 *Gachals*, or 18 *Cabs*, or 10 *Gomors*, or 3 *Seahs*, made 1 *Epha*; 1800 *Gachals*, or 90 *Cabs*, or 50 *Gomors*, or 15 *Seahs*, or 5 *Epha's*, made 1 *Letteeth*; 3600 *Gachals*, or 180 *Cabs*, or 100 *Gomors*, or 30 *Seahs*, or 10 *Epha's*, or 2 *Letteeths*, made a *Chomer*, or *Coron*.

These Measures reduced to English Measures.

	Pecks.	Gall.	Pints.	In.	Dec.
The <i>Gachal</i> makes	0	0	$0\frac{1}{20}$	0	31
<i>Cab</i> ———	0	0	$2\frac{1}{5}$	0	73
<i>Gomor</i> ———	0	0	$5\frac{1}{10}$	1	211
<i>Seah</i> ———	1	0	1	4	036
<i>Epha</i> ———	3	0	3	12	107
<i>Letteeth</i> ———	1.6	0	0	26	500
<i>Chomer</i> ———	32	0	1	18	969

The *Jewish Liquid Measures* were the *Caph*, *Log*, *Cab*, *Hin*, *Seah*, *Bath*, *Epha*, *Choran*, *Chomer*. One and $\frac{1}{3}$ of a *Caph* made one *Log*. 5 $\frac{1}{3}$ *Caph's*, or 4 *Logs* made 1 *Cab*; 16 *Caphs*, or 12 *Logs*, or 3 *Cabs* made 1 *Hin*; 32 *Caphs*, or 24 *Logs*, or 6 *Cabs*, or 2 *Hins* made a *Seah*; 96 *Caphs*, or 72 *Logs*, or 18 *Cabs*, or 6 *Hins*, or 3 *Seahs* made one *Bath*, *Epha*; 960 *Caphs*, or 720 *Logs*, or 180 *Cabs*, or 60 *Hins*, or 30 *Seahs*, or 10 *Baths*, *Epha's* made a *Coron Chomer*.

These Measures reduced to English Wine Measures.

	Gall.	Pints.	Inch.
The <i>Caph</i> makes	0	$0\frac{5}{8}$	177
<i>Log</i> ———	0	$0\frac{5}{8}$	211
<i>Cab</i> ———	0	$3\frac{1}{2}$	844
<i>Hin</i> ———	1	2	2,533
<i>Seah</i> ———	2	4	5,067
<i>Bath</i> or <i>Epha</i> ———	7	4	15,20
<i>Coron, Chomer</i> ———	75	5	7,625

The *Jews* had also *Long Measures*, or *Measures of Application*, viz. the *Digit*, *Palm*, *Span*, *Cubit*, *Fathom*, *Ezechie's Reed*, *Arabian Pole*, *Schænus's measuring Line*.

Four *Digits* made a *Palm*; 12 *Digits* or 3 *Palms* made a *Span*; 24 *Digits* or 6 *Palms*, or 2 *Spans* made a *Cubit*; 96 *Digits*, or 24 *Palms*, or 8 *Spans*, or 4 *Cubits* made a *Fathom*; 144 *Digits*, or 36 *Palms*, or 12 *Spans*, or 6 *Cubits*, or 1 $\frac{1}{2}$ *Fathoms* made *Ezechie's Reed*; 192 *Digits*, or 48 *Palms*, or 16 *Spans*, or 8 *Cubits*, or 2 *Fathoms*, or 1 $\frac{1}{4}$ *Ezechie's Reed* made an *Arabian Pole*; 1920 *Digits*, or 480 *Palms*, or 160 *Spans*, or 80 *Cubits*, or 20 *Fathoms*, or 13 $\frac{1}{4}$ *Ezechie's Reeds*, or 10 *Arabian Poles* made a *Schænus*.

These Measures are reduc'd to English Measures.

	English Feet.	Inch.	Dec.
The <i>Digit</i> ———	0	0	912
<i>Palm</i> ———	0	3	648
<i>Span</i> ———	0	10	944
<i>Cubit</i> ———	1	9	888
<i>Fathom</i> ———	7	3	552
<i>Ezechie's Reed</i> ———	10	11	328
<i>Arabian Pole</i> ———	14	7	104
<i>Schænus</i> ———	145	11	04

The *Roman Dry Measures* were the *Ligula*, *Cyathus*, *Acetabulum*, *Hemina*, *Sextarius*, *Semimodius*, *Modius*.

Four *Ligula* made a *Cyathus*; 6 *Ligula*, or 1 $\frac{1}{2}$ *Cyathus* made 1 *Acetabulum*; 24 *Ligula*, or 6 *Cyathus's*, or 4 *Acetabulums* made 1 *Hemina*; 48 *Ligula*, or 12 *Cyathus*, or 8 *Acetabulums*, or 2 *Heminas* made 1 *Sextarius*; 384 *Ligula*, or 96 *Cyathus's*, or 64 *Acetabulums*, or 16 *Heminas*, or 8 *Sextarius's* made a *Semimodius*; 768 *Ligula*, or 192 *Cyathus's*, or 128 *Acetabulums*, or 32 *Heminas*, or 16 *Sextarii*, or 2 *Semimod* made 1 *Modius*.

These Measures reduced to English.

	Pecks.	Gall.	Pints.	Inch.	Dec.
The <i>Ligula</i> makes	0	0	$0\frac{1}{8}$	0	01
<i>Cyathus</i> ———	0	0	$0\frac{1}{4}$	0	04
<i>Acetabulum</i> ———	0	0	$0\frac{1}{2}$	0	06
<i>Hemina</i> ———	0	0	$0\frac{1}{2}$	0	24
<i>Sextarius</i> ———	0	0	1	0	48
<i>Semimodius</i> ———	0	1	0	3	84
<i>Modius</i> ———	1	0	0	7	68

The *Roman Liquid Measures* were the *Ligula*, *Cyathus*, *Acetabulum*, *Quartarius*, *Hemina*, *Sextarius*, *Congius*, *Urna*, *Amphora*, *Culeus*.

Four *Ligula* made a *Cyathus*; 6 *Ligula* or 1 $\frac{1}{2}$ *Cyathus* made 1 *Acetabulum*; 12 *Ligula*, or 3 *Cyathus's*, or 2 *Acetabulums* made a *Quartarius*; 24 *Ligula*, or 6 *Cyathus's*, or 4 *Acetabulums*, or 2 *Quartarius's* made 1 *Hemina*; 48 *Ligula*, or 12 *Cyathus's*, or 8 *Acetabulums*, or 4 *Quartarius's*, or 2 *Heminas* made a *Sextarius*; 288 *Ligula*, or 72 *Cyathus's*, or 48 *Acetabulums*, or 24 *Quartarius's*, or 12 *Hemina's*, or 6 *Sextarius's* made a *Congius*; 1152 *Ligula*, or 288 *Cyathus's*, or 192 *Acetabulum's*, or 96 *Quartarius's*, or 48 *Hemina's*, or 24 *Sextarius's*, or 4 *Congius's* made 1 *Urna*; 2304 *Ligula*, or 576 *Cyathus's*, or 384 *Acetabulums*, or 192 *Quartarius's*, or 96 *Hemina's*, or 48 *Sextarius's*, or 8 *Congius's*, or 2 *Urna's* made 1 *Amphora*; 46080 *Ligula*, or 11520 *Cyathus's*, or 768 *Acetabulums*, or 3840 *Quartarius's*, or 1920 *Hemina's*, or 960 *Sextarius's*, or 160 *Congius's*, or 40 *Urna's*, or 20 *Amphora's* made a *Culeus*.

These Measures are reduced to English Wine Measure.

	Gall.	Pints.	Inch.	Dec.
The <i>Ligula</i> makes	0	$0\frac{1}{8}$	0	$117\frac{1}{2}$
<i>Cyathus</i> ———	0	$0\frac{1}{4}$	0	$469\frac{1}{2}$
<i>Acetabulum</i> ———	0	$0\frac{1}{2}$	0	$70\frac{1}{2}$
<i>Quartarius</i> ———	0	$0\frac{1}{2}$	1	409
<i>Hemina</i> ———	0	$0\frac{1}{2}$	2	818
<i>Sextarius</i> ———	0	1	5	636
<i>Congius</i> ———	0	7	4	942
<i>Urna</i> ———	3	$4\frac{1}{2}$	5	33
<i>Amphora</i> ———	7	1	10	66
<i>Culeus</i> ———	143	3	10	095

Modern Measures are either *Domestick* (as the *English* with Respect to us) or *Foreign*; and are also divided into *Long-Measures*, or *Measures of Application*, *Dry Measures* and *Liquid Measures*.

The *English long Standard Measure* for Commerce is the *YARD*, containing three *English Feet*, equal to 3 *Paris Feet* 1 *Inch* $\frac{1}{4}$ of an *Inch*, or $\frac{3}{4}$ of a *Paris Ell*. Its Divisions are the *Foot*, *Span*, *Palm*, *Inch*, and *Barley-Corn*. The *Foot* is divided into 12 *Inches*, and the *Inch* into three *Barley-Corns*. The *Span* is a *Measure*

Measure taken from the Space between the Thumb's End and the Tip of the little Finger, when both stretched out; and is estimated at three Hand's Breadth, or 9 Inches. The Palm is three Inches, and the Inch 3 Barley-Corns.

Three Inches make a Palm, 9 Inches, or 3 Palms make a Span; 12 Inches, or 4 Palms, or $1\frac{1}{2}$ make a Foot; 18 Inches, or 6 Palms, or 2 Spans, or $1\frac{1}{2}$ make a Cubit; 36 Inches, or 12 Palms, or 4 Spans, or 3 Feet, or 2 Cubits make a Yard.

English Dry or Corn-Measures are raised from the Winchester Gallon, which contains $272\frac{1}{4}$ solid Inches, to hold of pure running or Rain-water 9 Pounds 13 Ounces. By an Act of Parliament made in 1627, it is decreed that a round Bushel, 18 Inches $\frac{1}{2}$ wide, and 8 deep, is a legal Winchester Bushel; the Divisions thereof are as follows:

Three hundred and $\frac{1}{4}$ solid Inches make a Pint; $272\frac{1}{4}$ solid Inches, or 8 Pints make a Gallon; $544\frac{1}{2}$ solid Inches, or 16 Pints, or 2 Gallons make 1 Peck; 2178 solid Inches, or 64 Pints, or 8 Gallons, or 4 Pecks make 1 Bushel; 17424 solid Inches, or 128 Pints, or 16 Gallons, or 8 Pecks, or 2 Bushels make 1 Strike; 256 Pints, or 32 Gallons, or 16 Pecks, or 4 Bushels, or 2 Strikes make 1 Charnock or Coom; 512 Pints, or 64 Gallons, or 32 Pecks, or 8 Bushels, or 4 Strikes, or 2 Charnocks, make 1 Seam, or Quarter; 3072 Pints, or 384 Gallons, or 192 Pecks, or 48 Bushels, or 24 Strikes, or 12 Charnocks, or 6 Seams, or Quarters, make 1 Wey; 5120 Pints, or 640 Gallons, or 320 Pecks, or 80 Bushels, or 40 Strikes, or 20 Charnocks, or 10 Seams, or Quarters, or 12 Wey, make a Last.

ENGLISH Liquid Measures were originally rais'd from Troy Weight, it being enacted, by several Statutes, that eight Pounds Troy of Wheat, gather'd from the Middle of the Ear, and well dry'd, should weigh a Gallon of Wine Measure; the Divisions and Multiplications whereof should form the other Measures. At the same Time it was order'd, that there should be but one Liquid Measure in the Kingdom; yet Custom has prevail'd, and there having been introduc'd a new Weight, viz. the Averdupoise, there is now, in England, a second standard Gallon adjusted thereto, and therefore exceeding the former, in the Proportion of the Averdupoise Weight to Troy Weight. From this latter Standard are rais'd two several Measures, the one for Ale, the other for Beer.

The seal'd Gallon at Guildhall, which is the Standard for Wines, Spirits, Oils, &c. is suppos'd to contain 231 Cubick Inches; yet, by actual Experiment made in 1688, before the Lord Mayor, and Commissioners of Excise, it was only found to contain 224 Cubick Inches: It was, however, agreed, to continue the common suppos'd Contents of 231 Cubick Inches in the Ale Gallon; but, in Effect, the Ale Quart contains $70\frac{1}{2}$ Cubick Inches, on which Principle, the Ale and Beer Gallon will be 282 Cubick Inches. The several Divisions and Multiples of these Measures, are as follow:

Of the ENGLISH Wine Measure, $28\frac{1}{2}$ solid Inches make a Pint; 231 solid Inches, or 8 Pints, make 1 Gallon; 4158 solid Inches, or 144 Pints, or 18 Gallons, make a Rundlet; $7276\frac{1}{2}$ solid Inches, or 252 Pints, or $31\frac{1}{2}$ Gallons, or $1\frac{1}{2}$ Rundlet, make a Barrel; 9702 solid Inches, or 336 Pints, or 42 Gallons, or $2\frac{1}{2}$ Rundlets, or $1\frac{1}{2}$ Barrel, make a Tierce; 14553 solid Inches, or 504 Pints, or 63 Gallons, or $3\frac{1}{2}$ Rundlets, or 2 Barrels, or $1\frac{1}{2}$ Tierce, make 1 Hogshead; 19279 solid Inches, or 672 Pints, or 84 Gallons, or $4\frac{1}{2}$ Rundlets, or $2\frac{1}{2}$ Barrels, or 2 Tierces, or $1\frac{1}{2}$ Hogshead, make 1 Punchion; 29106 solid Inches, or 1008 Pints, or 126 Gallons, or 7 Rundlets, or 4 Barrels, or 3 Tierces, or 2 Hogsheads, or $1\frac{1}{2}$ Punchion, make 1 Butt; 58212 solid Inches, or 2016 Pints, or 252 Gallons, or 14 Rundlets, or 8 Barrels, or 6 Tierces, or 4 Hogsheads, or 3 Punchions, or 2 Butts, make 1 Tun.

Of Ale Measure, 8 Pints make 1 Gallon; 64 Pints, or 8 Gallons, make 1 Firkin; 128 Pints, or 16 Gal-

lons, or 2 Firkins, make 1 Kilderkin; 256 Pints, or 32 Gallons, or 4 Firkins, or 2 Kilderkins, make 1 Barrel; 512 Pints, or 64 Gallons, or 8 Firkins, or 4 Kilderkins, or 2 Barrels, make 1 HOGSHEAD.

Of Beer Measure, 8 Pints make 1 Gallon; 72 Pints, or 9 Gallons, make 1 Firkin; 144 Pints, or 18 Gallons, or 2 Firkins, make 1 Kilderkin; 288 Pints, or 36 Gallons, or 4 Firkins, or 2 Kilderkins, make 1 Barrel; 576 Pints, or 72 Gallons, or 8 Firkins, or 4 Kilderkins, or 2 Barrels, make 1 HOGSHEAD.

Foreign MEASURES, are either French, Spanish, Portuguese, Italian, German, Dutch, &c.

FRENCH Measures, in Commerce, are, also, either long, dry, or liquid Measures.

The French long, or standard Measure, is the Aune, or Ell, containing 3 Paris Feet, 8 Inches, 8 Lines; or 1 Yard $\frac{2}{3}$ English; the Paris Foot Royal exceeding the English by $\frac{6}{1000}$ Parts. This Ell is divided two Ways, viz. into Halves, Thirds, Sixths, and Twelfths; and into Quarters, Half Quarters, and Sixteenths.

This Ell holds throughout the greatest Part of France, except at Troyes in Champagne, at Arc in the Barrois, in some Parts of Picardy and Burgundy, where the Ell contains only 2 Feet, 5 Inches, 1 Line; in Bretagne, where it contains 4 Feet, 2 Inches, 11 Lines; and at St. Genoux in Berry, where it exceeds the Paris Ell by 8 Lines. But in Languedoc, Provence, Guienne, particularly at Marseilles, Montpellier, and Thoulouse, they measure by the Canna, which at Thoulouse, and in Guienne, contains 5 Paris Feet, 5 Inches, and 6 Lines; or 1 Paris Ell and a Half. At Montpellier, and throughout the lower Languedoc; as also in Provence, Avignon, and Dauphine, the Canna is 6 Feet, and 9 Lines; or 1 Paris Ell two Thirds.

The FRENCH Dry Measures are, the Litron, Bushel, Minot, Mine, Septier, Muid, and the Tun. The Litron is divided into 2 Demi Litrons, and 4 Quarter Litrons; and contains 36 Cubick Inches of Paris. By Ordonnance, the Litron is to be 3 Inches and a Half high; and 3 Inches 10 Lines broad. The Litron for Salt is larger, and is divided into 2 Halves, 4 Quarters, 8 Demi Quarters, and 16 Measurettes. The Bushel is different in different Jurisdictions; at Paris it is divided into Demi Bushels, each Demi Bushel into 2 Quarts, the Quart into 2 Half Quarts, and the Half Quart into 2 Litrons; so that the Bushel contains 16 Litrons. By Ordonnance the Paris Bushel is to be 8 Inches, 2 Lines and a Half high; and 10 Inches broad, or in Diameter within-side. The Minot consists of 3 Bushels; the Mine of 2 Minots, or 6 Bushels; the Septier of 2 Mines, or 12 Bushels; and the Muid of 12 Septiers, or 144 Bushels. The Bushel for Oats is estimated double that of any other Grain; so that there go 24 Bushels to make the Septier, and 288 to make the Muid. It is divided into 4 Picotins, the Picotin containing 2 Quarts, or 4 Litrons. The Bushel for Salt is divided into 2 Half Bushels, 4 Quarters, 8 Half Quarters, and 16 Litrons. Four Bushels make a Minot; 16 a Septier; and 192 a Muid. The Bushel for Wood is divided into Halves, Quarters, and Half Quarters; 8 Bushels make the Minot; 16 a Mine; 20 Mines, or 320 Bushels, the Muid. For Plaster, 12 Bushels make a Sac; and 36 Sacs a Muid. For Lime, 3 Bushels make a Minot; and 48 Minots a Muid.

The Minot is by Ordonnance to be 11 Inches, 9 Lines high; and 14 Inches, 8 Lines, in Diameter. The Minot is compos'd of 3 Bushels, or 16 Litrons; 4 Minots make a Septier, and 48 a Muid.

The Mine is no real Vessel, but an Estimation of several others. At Paris, the Mine contains 6 Bushels, and 24 make the Muid. At Rouen, the Mine is 4 Bushels; at Dieppe 18 Mines make a Paris Muid.

The Septier differs in different Places; at Paris it contains 2 Mines, or 8 Bushels, and 12 Septiers the Muid. At Rouen the Septier contains 2 Mines, or 12 Bushels; 12 Septiers make a Muid at Rouen, as well as Paris; but 12 of the latter are equal to 14 of the former. At Toulon the Septier contains a Mine and a Half, 3 of which Mines make the Septier of Paris.

The

The *Muid*, or *Muy*, of *Paris*, consists of 12 *Septiers*, and is divided into *Mines*, *Minots*, *Busshels*, &c. that for *Oats* is double that for other Grain, *i. e.* contains twice the Number of *Busshels*. At *Orleans* the *Muid* is divided into *Mines*, but those *Mines* only contain 2 *Paris Septiers* and a Half.

In some Places they use the *Tun* in lieu of the *Muid*, particularly at *Nantz*, and almost throughout the Province of *Bretagne*, where it contains 10 *Septiers*, of 16 *Busshels* each, and weighs about 3300 Pounds. Three of these *Tuns* make 28 *Paris Septiers*. At *Rochel*, and throughout the *Junis*, the *Tun* contains 42 *Busshels*, and weighs 2 per Cent. less than that of *Nantz*. At *Brest* it contains 20 *Busshels*, is equal to 10 *Paris Septiers*, and weighs about 2240 Pounds.

The *FRENCH Liquid Measures* at *Paris*, and in a great Part of the Kingdom, (beginning by the smallest) are, the *Possion*, which contains 6 Cubick Inches; 2 *Possions* make the *Demi Septier*; 2 *Demi Septiers* the *Septier*, or *Chopine*; 2 *Chopines* a *Pint*; 2 *Pints* the *Quart*, or *Pot*; 4 *Quarts* the *Gallon*, or *Septier of Estimation*; and 36 *Septiers* the *Muid*; which is subdivided into 2 *Demi Muids*, 4 *Quarter Muids*, and 8 *Half Quarter Muids*. From the *Quarts* are likewise rais'd the *Measures* us'd in other Parts; as the *Queue* us'd at *Orleans*, *Blois*, &c. containing a *Paris Muid* and a Half, or 420 *Pints*; the *Tun* us'd at *Bayonne* and *Bordeaux* consisting of 4 *Bariques*, and equal to 3 *Paris Muids*; at *Orleans* to 2: So that the first *Tun* contains 864 *Pints*; and the second 576. The *Demi Queue* us'd in *Champagne* 96 *Quarts*; the *Pipe* us'd in *Anjou* and *Poitou* containing 6 *Busshels*, equal to 2 *Demi Queues* of *Orleans*, &c. or a *Muid* and a Half of *Paris*, or 432 *Pints*. The *Millerolle* us'd in *Provence*, containing 66 *Paris Pints*; and the *Poinçon* us'd at *Nantz*, the *Touraine*, and the *Bleffois*, equal to Half the *Orleans Tun*. The *Poinçon* us'd at *Paris*, is the same with the *Demi Queue*.

The *SPANISH Long Measure*, is the *Vara*, or *Yard*, in some Places call'd the *Barra*; containing $\frac{1}{27}$ of the *Paris Ell*. But the *Measures* in *Castile* and *Valencia* are, the *Pan*, *Span*, or *Palm*; which is us'd, together with the *Canna*, at *Genoa*. In *Arragon*, the *Vara* is equal to a *Paris Ell* and a Half, or 5 Feet, 5 Inches, and 6 Lines. In *Portugal*, the *Long Measure* is the *Cowedas*, containing 2 Feet, 11 Lines, or $\frac{2}{3}$ of the *Paris Ell*; and the *Vara*, 106 whereof make 100 *Paris Ells*.

The *SPANISH and PORTUGUESE Dry Measures* are, at *Cadiz*, *Bilboa*, and *St. Sebastian*, the *Fanega*, 23 whereof make the *Nantz*, or *Rochel Tun*, or 9 *Paris Septiers* and a Half: The *Bilboa Fanega* is somewhat larger, insomuch that 21 *Fanega's* make a *Nantz Tun*. At *Seville*, &c. they use the *Anagoras*, containing a little more than the *Paris Mine*; 36 *Anagora's* make 19 *Paris Septiers*. At *Bayonne*, &c. the *Concha*, 30 whereof are equal to 9 *Paris Septiers* and a Half. At *Lisbon*, the *Alqueir*, a very small Measure, 240 whereof make 19 *Paris Septiers*, and 60 of the *Lisbon Muid*.

The *SPANISH Liquid Measures* are, the *Bota*, containing between 36 or 37 *Dutch Stekans*, holding about 1000 Weight. The *Bota* consists of 30 *Arroba's*, each weighing 28 Pounds; each *Arroba* is again divided into 8 *Azumbres*, and the *Azumbre* into 4 *Quarts*. The *Pipe* consists of 18 *Arroba's*.

The *PORTUGUESE Liquid Measures* are, *Bota's*, *Almudes*, *Cavada's*, *Quarta's*; and for Oil, *Alqueirs*, or *Cantars*. The *Portuguese Bota* is somewhat smaller than the *Spanish*, being equal only to 25 or 26 *Stekans*. The *Quarta* is $\frac{1}{4}$ of the *Cavadas*; the *Cavadas*, or *Cavado*, is the same with the *Dutch Mengle*; 6 *Cavada's* make an *Alquier*; and 2 *Alquiers* 1 *Almade*, or *Almond*; 26 *Almonds* a *Bota*.

In *ITALY* they use, for a *Long Measure*, the *Braccio*, *Brace*, or *Fathom*; which obtains in the State of the Duke of *Modena*, in *Venice*, *Florence*, *Lucca*, *Milan*, *Mantua*, *Bologna*, &c. but of different Lengths. At *Venice* the *Braccio* contains 1 *Paris Foot*, 11 Inches, 3 Lines, or $\frac{1}{5}$ of the *Paris Ell*. At *Bologna*,

Modena, and *Mantua*, it is the same as at *Venice*. At *Lucca* it contains 1 *Paris Foot*, 9 Inches, 10 Lines; or Half a *Paris Ell*. At *Florence* it contains 1 Foot, 9 Inches, 4 Lines; or $\frac{4}{5}$ of a *Paris Ell*. At *Milan* the *Brace*, for measuring of Silks, is 1 *Paris Foot*, 7 Inches, 4 Lines; or $\frac{4}{5}$ of a *Paris Ell*: That for woollen Cloth is the same with the *Ell* of *Holland*. At *Bergama*, the *Brace* is 1 Foot, 7 Inches, 6 Lines; or $\frac{5}{6}$ of a *Paris Ell*. The usual Measure at *Naples*, is the *Canna*, containing 6 Feet, 10 Inches, and 2 Lines; or 1 *Paris Ell*, and $\frac{1}{17}$.

The *ITALIAN Dry Measures* are, the *Staro*, or *Stajo*, and *Tomolo*, *i. e.* at *Venice*, *Leghorn*, and *Lucca*; they use the *Staro*; and at *Naples* and *Sicily* the *Tomolo*. The *Staro* of *Leghorn* weighs 54 Pounds; 112 *Staros*, and $\frac{1}{2}$, are equal to the *Amsterdam Last*. At *Lucca*, 119 *Staros* make the *Last* of *Amsterdam*. The *Venetian Staro* weighs 128 *Paris Pounds*; the *Staro* is divided into 4 *Quarters*; 35 *Staros*, and $\frac{1}{2}$, or 140 *Quarters*, and $\frac{1}{4}$, make the *Last* of *Amsterdam*. At *Naples*, the *Tomolo*, or *Tomalo*, is equal to 1 Third of the *Paris Septier*; 36 *Tomoli* and a Half make the *Carro*; and 1 *Carro* and a Half, or 44 *Tomoli*, make the *Last* of *Amsterdam*. At *Palermo*, 16 *Tomoli* make the *Salma*; and 4 *Mondili* the *Tomolo*; 10 *Salma's* and $\frac{1}{2}$, or 171 *Tomoli* $\frac{1}{2}$, make the *Last* of *Amsterdam*.

At *ROME* they use, for *Liquid Measure*, the *Boccale*, or *Pot*, containing a little more than a *Paris Pint*; 7 *Boccales* and a Half make the *Bubbo*; and 13 *Bubbo's* and a Half the *Brenta*; so that the *Brenta* contains 96 *Boccales*. At *Florence*, the *Staro*, or *Stajo*, containing 3 *Bariles*, and the *Barile* 20 *Fiasco's*, or *Flasks*, nearly equal to a *Paris Pint*. At *Verona*, they use the *Bassa*, 16 whereof make a *Brenta*; the *Brenta* contains 96 *Boccales*, or 13 *Rubbots* and a Half. At *Venice*, the *Amphora*, containing 2 *Bottes*; the *Botte* 4 *Biguncio's*; the *Biguncio* 4 *Quarts*; the *Quart* 4 *Tischauffera's*. The *Venetian Botte* is again divided into *Mostachio's*, 76 whereof make the *Amphora*. At *Ferrara*, the *Mastilly*, containing 8 *Secchio's*. In *Istria*, *Secchio's*, 6 whereof make the *Urna*. In *Calabria* and *Apulia*, *Pignatoli's*, equal to a *French Pint*; 32 *Pignatoli's* make the *Staro*, or *Stajo*; and 10 *Staros* the *Salma*.

The *Standard Measure* in *Holland*, *Flanders*, *Sweden*, a good Part of *Germany*, many of the *Hanse Towns*, *Dantzick*, *Hambourg*, *Geneva*, *Frankfort*, &c. is the *Ell*; which differs, in all these Places, from the *Paris Ell*: For in *Holland* it contains 1 *Paris Foot*, 11 Lines; or $\frac{4}{5}$ of the *Paris Ell*. The *Flanders Ell* contains 2 Feet, 1 Inch, 5 Lines, and Half a Line; or $\frac{7}{8}$ of the *Paris Ell*. The *Ell* of *Germany*, *Brabant*, &c. is equal to that of *Flanders*.

The *Muscovite Measures* are, the *Cubit*, equal to 1 *Paris Foot*, 4 Inches, 2 Lines; and the *Arum*, 2 whereof are equal to 3 *Cubits*.

The *Dutch*, *Swedish*, *Polish*, *Prussian*, and *Muscovite Dry Measures*, are, the *Last*, *Left*, *Leth*, or *Letch*, so call'd, according to the various Pronunciations of the People who use it. In *Holland* the *Last* is equal to 19 *Paris Septiers*, or 38 *Bordeaux Busshels*; and weighs about 4560 Pounds. The *Last* they divide into 27 *Mudes*, and the *Mude* into 4 *Schepels*. In *Poland* the *Last* is 40 *Bordeaux Busshels*, and weighs about 4800 *Paris Pounds*. In *Prussia* the *Last* is 133 *Paris Septiers*. In *Sweden* and *Muscovy* they measure by the great and little *Last*; the first containing 12 Barrels, and the second Half as many. In *Muscovy* they likewise use the *Chefford*, which is different in various Places; that of *Archangel* is equal to 3 *Rouen Busshels*.

At *Amsterdam* their *Liquid Measures* (to begin with the Diminutions) are, *Mengles*, or *Bottles*, equal to *French Pots*, containing 2 Pounds, 4 Ounces *Marc*, of an ordinary Liquor. The *Mengle* is divided into 2 *Pints*, 4 Half *Pints*, 8 *Muffies*, 16 Half *Muffies*, &c. 770 *Mengles* make their *Tun*. The *Viertel*, or *Quarter*, consists of 5 *Mengles*, and 1 Sixth; the *Wine Viertel* is just 6 *Mengles*; the *Stekan*, or *Stekamen*,

men, contains 60 Mengles; the *Anker* contains 2 Stekans; and 4 Ankers the *Avon*. For Oil, they use the *Tun*, which contains 6 *Awms*, or *Abms*; equal to 1600 *Paris* Pints.

Throughout almost all *Germany*, they use the *Fuder* for their *Liquid Measure*, but with some Difference in its Length, as well as its Subdivisions. The *Fuder* is suppos'd the Load of a Cart with two Horses; 2 *Fuders* and a Half make the *Roeder*; 6 *Awms* the *Fuder*; 20 *Fertels* the *Awn*; and 4 *Massens*, or *Maasses*, the *Fertel*: So that the *Roeder* contains 1200 *Maasses*; the *Fuder* 480; the *Awn* 80; and the *Fertel* 41. At *Nuremberg*, the Division of the *Fuder* is into 12 *Heemers*; at *Ausbourg*, the *Fuder* is divided into 8 *Jez*; the *Jez* into 2 *Muids*, or 12 *Befons*; the *Befon* into 8 *Maasses*; which makes 768 *Maasses* in the *Fuder*, as in that of *Nuremberg*. At *Vienna* they divide the *Fuder* into 32 *Heemers*; the *Heemer* into 32 *Achtelings*; and the *Achteling* into 4 *Selitins*. The *Awm*, there, is 80 *Maasses*; the *Fertel*, call'd also *Schrewe*, 4 *Maasses*; and the *Wiclinck* 24 *Heemers*. At *Heidelberg*, the *Fuder* into 10 *Awms*; the *Awm* into 12 *Vertels*; and the *Vertel* into 4 *Maasses*. At *Wittenberg*, the *Fuder* is divided into 6 *Awms*; the *Awm* into 16 *Yunes*; and the *Yune* into 10 *Maasses*.

The *Long Measures* in *TURKEY*, and the *LEVANT*, are, the *Picq*, containing 2 Feet, 2 Inches, and 2 Lines; or 3 Fifths of the *Paris Ell*. The *Cobre* in *China*, 10 whereof are equal to 3 *Paris Ells*. In *Persia*, and some Parts of the *Indies*, the *Guere*, whereof there are two Kinds; the *Royal Guere*, call'd also the *Guere Monkelfer*, containing 2 *Paris Feet*, 10 Inches, 11 Lines; or 4 Fifths of the *Paris Ell*; and the *shorter Guere*, call'd simply *Guere*, only two Thirds of the former. At *Goa*, and *Ormus*, the *Measure* is the *Vara*, the same with that of the *Portuguese*, having been introduced by them. In *Pegu*, and some other Parts of the *Indies*, the *Cando*, or *Candi*, equal to the *Ell* of *Venice*. At *Goa*, and other Parts, they use a larger *Cando*, equal to 17 *Dutch Ells*; exceeding that of *Babel*, and *Balsora*, by $\frac{7}{8}$ per Centum; and the *Varra* by $\frac{1}{2}$. In *Siam* they use the *Ken*, short of 3 *Paris Feet* by 1 Inch. The *Ken* contains 2 *Soks*; the *Sock* 2 *Keubs*; the *Keub* 12 *Nious*, or Inches; the *Niou* to be equal to 8 Grains of Rice, *i. e.* to about 9 Lines. At *Camboia* the *Haster*, in *Japan* the *Tatam*, and the *Span* on some of the Coasts of *Guinea*.

It may be here observ'd, that most, if not all the eastern Nations, with whom the *Europeans* traffick, have not any such Things as *Measures of Capacity*, either for Things liquid or dry; but that they sell all Things, even Liquors, by the Weight. We may, however, rank among the Number of *Liquid Measures*, the *Coco's* and *Canan* of *Siam*; the first are the *Coco's*-shells clear'd of their Kernel; and since these are not all of the same Capacity, they measure them with *Cauri's*, or little Shells found in the *Maldives*, which also serve for Money in some States of the *Indies*. Some *Coco's* hold a thousand *Cauri's*, and some only five hundred. Above the *Coco's* is the *Canan*, a little Measure used in the same Country, and called by the *Portuguese* *Cboup*, holding about a *Paris Quart*. On the Coasts of *Barbary* they used the *Rotolo*, or *Rotoli*, for *Liquid Measure*; at *Tripoli* 32 *Rotoli* make the *Matuli*; at *Tunis* 42 of the *Rotoli* of *Tripoli* make a *Matara*, or *Mataro*; and the other Places on the same Coast use nearly the same Measures.

The usual Measure of Wood for Firing, is the *Cord*, 4 Feet high, as many broad, and 8 long; divided into 2 Half *Cords*, called *Ways*, and by the *French* *Membres*; and also, in several Provinces of the Kingdom, *Voye de Bois*, as being supposed Half a Waggon Load.

The Measure for Horses, is the Hand, or Handful, which by the Statute contains 4 Inches.

The next Thing our Pupil should know, before he can be reasonably supposed qualified for a Merchant, and which must be one of his most essential Qualifications, the most intricate, and consequently the most difficult in the Acquisition, is, that of EXCHANGE;

which is the Profit which a Merchant, Negotiant, or Broker, makes of a Sum of Money receiv'd, and for which a *Bill of Exchange* is drawn, payable in some other Place, and some other Person; for the Interest of his Money, and the Salary and Reward of his Negotiation. Thus,

A *BILL OF EXCHANGE* is so noble and excellent in its Nature, that though it can't be called a Speciality, because it wants those Formalities required by the Common Law of *England*, as Seal, Delivery, and Witnesses; yet it is equivalent thereto, and may be reckoned, to exceed any Speciality, or Bond, in its Punctuality of Payment; it carrying a commanding Power with it, although it shall be directed from a Servant to his Master: For if he accepts it, the Concern is as great, in Respect to his Honour and Credit, for him to see it paid in due Time, as the Servant can desire, or the Party to whom it is made payable can expect; in Regard the Acceptor's Credit lies at Stake; and if he fails Payment at the precise Day, presently there will issue forth a Protest, which may tell Tales, and soon put a Stop to his Commerce; for a Merchant who does not pay his accepted Bills at the Time of Payment, or Time appointed, must not expect to keep up long his Credit; and he wounds, at the same Time, that of the Drawer, since both the Acceptor and Drawer are bound until Payment is made.

Twelve Things are to be observ'd in drawing a *Bill of Exchange*; 1. There must be set down, at the Top of the *Bill*, the Place where, and the Day when the *Bill* is drawn, without forgetting the Difference between old and new Stile. 2. It is common to set down, in the same Line, the Sum for which the *Bill* is drawn. 3. The Time of Payment. 4. The Quality of the *Bill*. 5. The Name of the Person in whose Favour the *Bill* is drawn. 6. For what Sum of Money. 7. The Quality of the Money. 8. The Price of the Exchange. 9. How the Value is receiv'd, and of whom. 10. What Advice the Person upon whom the Draught is made must expect. 11. The Subscription, or Name of the Drawer. Lastly, The Address, or Direction to the Person who is to pay the *Bill*.

The two first of these twelve Articles wanting no further Explication, we'll begin to explain the ten following by the third, which relates to the Payment of a *Bill of Exchange*; with Regard to which, these Things are to be considered, that *Bills of Exchange* are either at Sight, *i. e.* to be paid when accepted; or at some Days or Months Sight; which may be one, two, three, four, or eight Days, or Months, after they are presented for Acceptance; which, when they come to Hand, the Day of the Month when accepted must be mentioned, with the Acceptance: Or at one or more *Usances*, which Space of *Usance* differs in several Countries: Or payable at a certain Day specified in the *Bill*, without any Relation to the Date of the *Bill*, or Time of accepting the same: Or payable at certain Fairs, as is customary in some particular Places; as at *Lyons* in *France*; *Frankfort*, *Leipsick*, &c. in *Germany*, where *Bills* are usually drawn payable at such or such a Fair.

The Thing meant by the Quality of a *Bill of Exchange*, is, that if it be the first, second, or third, which must be mentioned in the *Bill*, since that Precaution is used among Merchants, and others, to take two, sometimes more *Bills of Exchange*, for the same Sum of Money; that in Case the first should be lost, the second may supply its Place; and that the Drawer may not be subject to any Inconveniency, by the Multiplicity of Bills for the same Sum of Money, they are distinguish'd by the Quality of first, second, &c. and either of these being paid, the other remains void, and of no Effect; so that no Person will take a *Bill of Exchange* without a second with it, except it be accepted; and then the second is needless; or unless it be specified in the *Bill*, *This my only Bill of Exchange for the Sum*; which is a Form often used by Merchants, when the Payer and Drawer live in the same Place,

Place, or in neighbouring Towns, &c. when they think there is no Danger of losing the Bill, and so don't take the Trouble of making out two.

The Christian Name and Surname of the Person to whom the Bill is to be paid, must be set down distinctly; and if it be to two Copartners, both their Surnames must be set down, viz. Mess. A and B, Merchants in London. It is also the Custom, to mention in the Bill the Employ, or Trades of the Parties.

Note, That a *Bill of Exchange* is always made payable to his, her, or their Orders; otherwise it could not be easily negotiated, nor endors'd to any other Person.

The *Sum for which the Bill is drawn* must be expressed in Words at Length distinctly; the Number of Pounds, Shillings, Pence, or of Livres, Sols, Deniers, &c.

There ought to be great Care taken to express the Sort of Specie of Money; that's to say, whether in Bank or Current Coin; because of the many different Sorts of Money in all Nations.

The *Price of Exchange* must be expressed in Words at length in the Bill, v. g. Suppose the *Bill* was drawn between *London* and *Paris*, there must be specified how many Pence, &c. *English* for the Crowns of sixty Sols *Tournois*; and if between *England* and *Holland*, how many Skillings and *Groats Dutch* Money for twenty Shillings *English*.

There must be inserted in all Bills of Exchange, the Name and Surname of the Person who pays the Value of the Bill, and in what Manner it is paid, for the Satisfaction of the Person in whose Favour the *Bill* is drawn. The Method commonly practised, in this Case, is these general Terms, *Value received of T. B. or Value received*.

It is common to end Bills of Exchange with these or the like Words; *Place it to Account, as per Advice, from your humble Servant*, D. C. Under this is usually written, as in any other Letter, the Name or ordinary Subscription of the Drawer.

The *Address* or Direction to the Party who is to pay the *Bill* is commonly written under the *Bill* towards the left Hand, over-against the Subscription, leaving a small Space for Acceptance between the Directions and Subscription; in which must be set down the Name, Surname, Character, and Place of Residence of the Party, whom the *Bill* is drawn upon.

Note, That it is not Customary for Merchants to accept or pay *Bills of Exchange*, without particular Letters of Advice from the Drawers, in which they take Notice of their having drawn a certain Sum, expressing likewise the Species or Sorts of Money, and all the other Circumstances very exactly, and very particularly, to the Order of such a Person, payable at such a Time: And it is of such Consequence to be punctual in giving such Advices, that though the Person, upon whom a *Bill* may be drawn, has Provision in his Hand for the Payment of it, he may suffer it to be protested for Want of Advice from the Drawer.

To reduce all this into Practice, I have drawn here several Forms of *Bills of Exchange*.

FORMS of Bills of Exchange.

London, 1st June, 1742. Exchange 1961. Sterling, at 34 s. 5 d. per Pound Sterling.

At three Day's Sight, pay this my only Bill of Exchange to Mr. P. T. or Order, the Sum of one hundred ninety-six Pounds Sterling in Bank-Money, at thirty-four Skillings and five Pence per Pound Sterling, Value received of M. R. B. as per Advice, from

Your most Humble Servant,

To M. V. D.
Merchant in Rotterdam.

L. M.

London, 2nd July, 1742. Crowns 946, at 34 d. per Crown.

At Sight, pay this my first of Exchange to M. Olive, or Order, the Sum of nine hundred forty-six Crowns *Tournois*, at sixty Sols *Tournois* per Crown, Value received, at thirty-four Pence Sterling per Crown, as per Advice, from

Your humble Servant,

To M. George Waters
Banker in Paris.

D. C.

Crowns 946, at 34 d. per Crown, *London* 2nd July, 1742.

At Sight, pay this my second of Exchange (my first not being paid) to M. Olive, or Order, the Sum of nine hundred forty-six Crowns *Tournois*, at sixty Sols *Tournois* per Crown, Value received, at thirty-four Pence Sterling per Crown, as per Advice, from

Your humble Servant,

To M. George Waters,
Banker in Paris.

D. C.

The third *Bill of Exchange* agrees in every Thing with the first and second, only with this Addition, *Pay this my third Bill of Exchange, my first and second not being paid*.

Exchange 2001. Sterling, at 33 s. per Pound Sterling, *London*, 7th July, 1742.

At ten Days Sight pay this our first of Exchange to the Order of Mess. P. T. the Sum of two hundred Pounds Sterling in Bank Money, Value in two Bills of Exchange receiv'd of them, at thirty-three Skillings per Pound Sterling, as per Advice, from

Your most humble Servant,

To Messieurs E. F.
Merchants in Amsterdam.

T. D.

Note, That as the foregoing Bill is suppos'd to be drawn by T. D. Partners, Merchants in *London*, to the Order of P. T. Merchants at the same Place, upon E. F. suppos'd to be Partners, Merchants in *Amsterdam*; in such Case of Partnership, it is usual for the Partners to sign with their Surnames only, except when a Partner is absent: For then the Partner present signs both his Name and Surname for Partners and Company; else the Bill, Bond, or Obligation, can be no Ways binding, or of any Force, against the Party or Parties that have not sign'd.

Exchange 500 Crowns, at 35 d. per Crown, *London*, 1st August, 1742.

At Usance pay this my first of Exchange to M. R. S. or Order, the Sum of five hundred Crowns, at sixty Sols *Tournois* per Crown, Value receiv'd in Goods of the said R. S. at 35 d. Sterling per Crown, as per Advice, from

Yours, &c.

To M. L. N.
Merchant in Rouen.

Exchange 560 Crowns, *London*, 1st October, 1742.

The 19th of November next pay this my first of Exchange to the Order of M. D. B. the Sum of five hundred and sixty Crowns, at sixty Sols *Tournois* per Crown, Value in Account, with M. M. R. as per Advice, from

Yours, &c.

To M. F. M.
Merchant in Bourdeaux.

Exchange 1000 Crowns, *London*, 27 January, 1741.
7 February,

At the usual Fair of *Roaster*, pay this my first of Exchange to M. O. P. or Order, the Sum of one

one thousand Crowns, at fixty Sols *Tournois* per Crown, Value receiv'd, of Sir B. W. as per Advice, from

Yours, &c.

To M. P. S.
Merchant in *Lions*.

Note, That any Bill of Exchange whatsoever is properly call'd a *Draught*, with Regard to the Drawer, and to the Person upon whom it is drawn, who is to pay the Contents; and at the same Time it is properly called a *Remittance*, with Regard to the Person who buys the Bill, and pays the Value, as well as to the Person to whom the Bill is sent or remitted, and who consequently receives the Contents. Hence the Terms of *Draughts* and *Remittances* used in *Commerce*.

By all this it is easily understood, that *Exchange* is nothing else, in Reality, but to give or take up Money in one City, or Town, to the End to have it again, or to restore the just Value thereof in Money in another Town, according to the Price which shall be agreed upon between the Taker and Deliverer, to allow or pay for the Exchange of the Money, and the Loss of Time, which shall be from the Time that the Money is taken up and delivered, until it be restored or received again. And this Method of negotiating Money, is only selling or disposing of Bills of Exchange, by transferring them to other Persons, according to certain Conditions stipulated or agreed upon between the Drawer and Buyer.

This Sort of *Commerce* of Bills of Exchange can't be carried on but three Ways, *viz.* at the *Par*, with *Profit*, or with *Advance to the Remitter*, or *Loss to the Drawer*.

A Bill is negotiated at the *Par*, when the Drawer receives precisely the same Sum contained in the Bill. It is negotiated *with Profit*, when the Drawer receives more Money than is contained in the Bill of Exchange. And *with Advance to the Remitter*, or *Loss to the Drawer*, when the Drawer receives a lesser Sum of Money than is contained in the Bill.

In the *Commerce* of Bills of Exchange there occur, sometimes, what is called *dry*, and *feigned Exchange*.

Dry EXCHANGE, is when a Person, having Occasion for Money, desires a Banker, or any other Person, to lend him some, perhaps 100 Pounds, at Interest, for a certain Time; the Banker, unwilling to let him have it at Interest, offers him the 100 Pounds by Exchange, at *Amsterdam*, whereunto they both agree: But the Party having no Correspondence there, the Banker bids him make his Bill of Exchange for so much Money, at double or triple Usance at *Amsterdam*, to any imaginary Person, at the Price the Exchange shall then go, with which the Party accordingly agrees. Now the Time being run out, there comes a Protest from *Amsterdam* for Non-payment, with the Exchange of the Money from *Amsterdam* to *London*; all which, with Costs, the Party must repay to the Banker in *London*, for the Money he has so borrowed.

Feigned EXCHANGE, is when a Person owes a Banker Money, and having no ready Cash to pay, desires Time. The Banker grants him that Time, provided he will be bound to pay him his Money at the Time at *Hambourg* by Exchange; and it is further agreed between them, if it shall be paid in the Time at *London*, the Party shall be free, otherwise he shall stand bound as before. In the Interim, the Banker writes to his Friend at *Hambourg*, to send him from thence a Bill of Exchange for the like Sum, feigning, that he owes him that Money. After the Time is expired, comes a Bill of Exchange from *Hambourg*, to pay here that Sum owed there, with the Re-change; all which the Banker puts to the Party's Account; and by the Agreement the Banker can oblige the Party to pay, in Case he does not pay him in *London* at the Time agreed upon.

Inland Bills of Exchange are as binding as the outland Bills of Exchange; for as all Bills of that Kind are nothing else but Orders given by Merchants, Bankers, &c. to furnish others for certain Sums of Money, for Value receiv'd of the Persons in whose Favour such Orders are made, the *Inland Bill of Exchange* made for Money taken up at *York*, *Bristol*, or any Part of *Great Britain*, and payable at *London*, is as effectual, and binding, as an outland Bill taken up at any Part beyond the Seas, and made payable here in *London*, they being both for Value taken up by Exchange; and further, the Exchange of Money may be as well made from one Town to another, as from one Kingdom or State to another; and the Customs of Negotiators are observed to be equally the same.

Four Persons are commonly employ'd in taking up Money, and remitting it by Exchange, (besides the Broker that procures the Bill) *viz.* two at the Place where the Money is taken up, and two at the Place where the Money is to be repaid.

The two Persons at the Place where the Money is taken up, are, the Party that delivers the Money by Exchange, who is called the Deliverer, and the Taker, or the Party that takes up Money by Exchange, which is commonly call'd the Drawer.

The two Persons at the Place where the Money is to be repaid, are, the Party that is to repay the Money, or the Party upon whom the Bill is drawn, and the Party to whom the Bill is sent to get it accepted, and to receive the Money, when it shall become due.

But, however, three Persons, and even two, can negotiate a Bill of Exchange.

A Bill of Exchange can be negotiated by three Persons, *viz.* by the Taker, Deliverer, and the Party on whom the Bill is drawn, by the Taker making and subscribing a Bill of Exchange for so much Money by him received of the Deliverer; the Deliverer ordering the Bill to be made payable to himself or Assigns, for the Value of himself; and the Party on whom the Bill is drawn paying it to the Deliverer, or Assigns. For Example, a Merchant of *London* sets out for *Bristol*, where he intends to lay out a certain Sum of Money; he delivers his Money to another Person in *London*, and takes his Bill of Exchange, drawn upon some Friend or Servant of his at *Bristol*, payable to the Deliverer: This Bill the Deliverer takes with him, and receives his Money again when he gets at *Bristol*, by Virtue of his Bill of Exchange.

There is a second Method, whereby three Persons are only wanted to negotiate Money by Bills of Exchange; which is this: The Drawer (having Money in his Hands belonging to the Party he makes his Bills payable to) makes a Bill of Exchange himself, confessing the Value in his own Hands, which Bill he draws upon his Factor, or Servant, payable to the Party he is indebted to.

A third Way of negotiating Bills of Exchange between three Persons, is this: Supposing a Person at *Bristol*, *Exon*, *Norwich*, &c. designing for *London*, takes up Money at any of the Places aforesaid, he subscribes a Bill for the Money, and says for Value receiv'd, and draws it upon himself, payable to such Person the Deliverer shall appoint to receive the Money in *London*.

Two Persons can likewise negotiate a Bill of Exchange, in this Manner: The Drawer makes a Bill of Exchange payable to himself, or Order, for the Value receiv'd of himself, and subscribes the Bill, and directs it to the Party that owes him Money, and is to pay it by Exchange. The Person upon whom the Bill is drawn accepts it, and returns it to the Drawer. The Drawer finding an Opportunity before the Bill becomes due, negotiates it with another Person, and receives the Money at the Place of his Residence, only making an Assignment on the Bill, payable to the Party that pays him the Value.

Because it often happens in foreign Bills of Exchange, they are made payable to the Party that delivers the

Value,

Value, or his Order, or to some other Person at the Place where the Party resides that draws the Bill, who sends it only to be accepted by the Person it is drawn upon, and afterwards have it returned to him again, that he may negotiate it, and receive the Value thereof in the Place of his Residence, by making an Assignment, either on the accepted Bill, or on the other Bill of the same Date and Tenor not accepted, as he shall see convenient; and that if an Assignment should come on the second Bill, payable to another Person, without Directions where to take up the first accepted Bill; this second Bill being presented to the Party that accepted the first, would deny the Acceptance of the second, because he thinks himself in no Manner obliged to accept both; but because he don't know, perhaps, to whom, and whose Hands the Bill is in he has accepted, the Party who has the second, for Want of Acceptance, gets it immediately protested; to prevent which, all Merchants should note down, in a Memorandum-Book, all Bills presented to them for Acceptance, and the Name and Place where the Person lives that presents the Bill to be accepted; that in Case the second Bill should be presented for Acceptance, by another Person, he who has accepted the first Bill should be able to tell the Party who shall present the second, the Name of the Person to whom he has accepted the first Bill, and where he lives; whereby he will prevent the second Bill being protested.

It is also of a very great Utility to a Merchant to take a Copy of a *Bill of Exchange* before it be presented for Acceptance, in a Book for that Purpose; since thereby he may know who are the usual Drawers and Deliverers of Money by Exchange in the Places whence the Bills come, and can know at any Time how the Exchanges go in those Places. For if a Merchant should receive several Bills by the same Post, and deliver them out of his Hands to get them accepted, before he notes them down in his Book; if they should be left at the Places for Acceptance, he may chance to forget some of them, which may cause him to disappoint his Friend, in not answering him in due Time, for want of the Bill or Bills that are missing; to the Disadvantage of his Friend, especially if they should be Bills sent only to get accepted, and to be sent back again to be negotiated.

It is customary among Merchants, especially great Dealers in *Bills of Exchange*, to keep Accounts of Bills receivable and payable; which they do either by keeping two Copy-Books, or dividing one Book into two different Parts; the one for copying of Bills payable, or those drawn upon themselves to be by them accepted and paid; and the other for Bills receivable, or those drawn on other Persons, and remitted to them to get them accepted, and receive the Money when they'll become due. Those Merchants are commonly so exact in this, as to copy the Bill *verbatim* in their Books, and even spell it after the same Manner, altho' some Words may happen to be false spelt: They copy it out Letter by Letter; nay, even other Blemishes, which may happen in a Bill, they endeavour to imitate in the Copy; which necessary Precaution they use to be the more capable, if the Bill should chance to be lost, to reclaim it, by comparing it with the Copy, if it should come again to Hand.

When they have accepted a Bill, they set down underneath the Copy of such Bill, the Day of the Month when accepted, also the Party's Name that presents the Bill, his Place of Abode, and when the Bill does become due; as in the following Example.

*Exchange 3456 Guilliers, 16 Stivers $\frac{1}{2}$ Banco, at 34.
10. Amsterdam, $\frac{2}{3}$ June, 1742.*

At Usance pay this my first of Exchange, to M. James Cavendish, or Order, the Sum of three thousand, four hundred, fifty-six Guilliers, sixteen Stivers and a Half Banco Exchange, at thirty-four Shillings,

ten Groots *per* Pound Sterling, Value receiv'd, and put it to Account, as *per* Advice, from

To M. Richard Du Cane,
Merchant in London.

Your humble Servant,
William Stanhope.

4 July accepted to John Stub, Servant to M. Peter French, in St. Mary Axe, due $\frac{2}{3}$ July, 330 l. 15 s. 11 d. Sterling.

And when a Bill comes to Hand to get accepted, they usually write, under the Directions, in the Copy where the Merchant lives that accepted the Bill, and the same Memorandum as above, when accepted, when due, &c.

It is an Error to think that there are three Days Respite allow'd for the Acceptance of a *Bill of Exchange*, before it can be protested; for as soon as the Bill has been presented, (which must be done as soon as it comes to Hand) and Acceptance refus'd, the very same Day the Bill may be protested; but we must not mistake for a Refusal of Acceptance, the Time which a Merchant desires, when a Bill is presented to it, to consider before he accepts it, since he demands nothing but what is usual between Merchant and Merchant: For according to the Custom of the Merchants the Party on whom the Bill is drawn may have 24 Hours to consider whether he will accept the Bill or not; but that Time being expired, one may in Civility demand of the Person on whom the Bill is drawn, the Bill of Exchange he left with him to be accepted. If he should answer, he has not accepted it, and desires we may call for it another Time; the 24 Hours being expir'd, it is at our Choice whether we will stay longer, or not; for then we may desire a Notary to go to the Dwelling-House of the Party that has the Bill, accepted, or not accepted; and, in Default of present Delivery thereof, we may cause a Protest to be made in due Form.

Though this may be lawfully done, yet among Merchants who are acquainted with one another, they do not usually proceed so strictly for Acceptance, but leave the Bill, sometimes, two or three Days with the Party it is directed to, if it be no ways prejudicial, the Post not going out in the Interim: But if the Post is to depart within two or three Days, then the Bills may reasonably be demanded to be accepted, or not accepted, that they may give Advice to those who sent them the Bills, or delivered the Value thereof, if paid.

A verbal Acceptance is as binding as a written one, though not always conceived in formal Terms. For Example, if a Merchant tells me, *Leave your Bill with me, and I will accept it; or Call for it To-morrow, and it shall be accepted:* These Words oblige as effectually, by the Custom of Merchants, and according to Law, as if the Party had actually signed and subscribed it. Likewise, if a Merchant should say, *Leave your Bill with me, I will look over my Accounts and Books between the Drawer and me; and call To-morrow, and accordingly the Bill shall be accepted;* this shall amount to a compleat Acceptance: For this Mention of his Books and Accounts is really intended to see if there are Effects in his Hands to answer the Draught, without which, perhaps, he would not answer the same.

If afterwards the Person that has thus accepted the Bill should refuse to set his Name to it, and to write under it, *Accepted by me, according to Custom here in England;* then the Person the Bill is made payable to may rest satisfied, by such an Acceptance, until the Time of Payment; and then if the Payment be not made by the Party, he may take his Course in Law against him.

A Bill once accepted, can't be revok'd by the Party that accepted it, tho' immediately after the Acceptance, and before it becomes due, he has Advice that the Drawer is broke. For Example, if a *Bill of Exchange*

change is presented to me, and I should accept the said Bill, and deliver it back to the Owner, and soon after receive Advice that the Drawer is fail'd; there is no such Thing as cancelling my Acceptance, or of making my Deed void, without mutual Consent; but I stand liable to the Payment, and must make it good, if I am able.

When we present a Bill for Acceptance, if the Party the Bill is drawn upon should refuse to accept the same, unless it be for a longer Time than the Bill is drawn for; we must, in such a Case, cause a Protest to be made for want of Acceptance, according to the Tenor of the said Bill. Or if we should leave the Bill for Acceptance, and he should, without our Knowledge, accept it for a longer Time, or for a lesser Sum than is mentioned in the Bill, in either of these Cases, we must carry the Bill to a Publick Notary, and get it protested, for want of Acceptance of the full Sum, or according to the Tenor of the same, and not erase, or blot out his Acceptance; for by his Acceptance he makes himself Debtor, and acknowledges the Draught upon him by his Correspondent, and can't refuse or discharge the same; and when the Money becomes due, according to the Tenor of the Bill, we must demand Payment, and if he refuses to pay, we must cause a second Protest to be made for Non-payment; this Protest must be sent away to the Deliverer, but we must keep the Bill by us, that we may receive the Money it is accepted for, at the Time it is accepted at, unless we have express Orders from the Deliverer to the contrary, which Orders are to be our Guide.

When we have got our Bills accepted, we must cast up the Time when they fall due; and if they be drawn from *Holland, France, Italy*, or any other Parts, in foreign Money, look in the Bills for the Price of the Exchange they are drawn at, and reduce them to *Sterling*, and then note on the Back of our Bills, close to the Top, or at one End of the Bills, in short, the Time when they will be due, and the Sum we are to receive at the Time, according to the Tenor of the Bills, before we lay them up; by which Means we'll at any Time readily know when our Bills will be due, and the Money we are to receive, by inspecting only the Back-side of the Bills, which will make our Business easy to us.

A Bill drawn on two Persons jointly, must have a joint Acceptance. For Example, if a *Bill of Exchange* come directed to two or more Persons in these Terms, *To M. James Newman, and M. John Pemberton, Merchants in London*; in this Case, both *Newman* and *Pemberton* ought to accept the Bill: For if one of them accepts it, and the other refuses to accept it, that Bill must be protested for want of due Acceptance. But if the Bill be directed thus, *To M. James Newman, or M. John Pemberton*; or thus, *To M. James Newman, or, in his Absence, to M. John Pemberton*; or if they should be joint Traders, or Copartners, *To Messieurs James Newman, and John Pemberton*; or *To M. James Newman, and Company*: It is sufficient, in this Case, that the Bill should be accepted by *Newman* or *Pemberton*, because it is accepted according to the Tenor of the Bill.

If a Factor of the *Turkey, India, or South Sea* Company, draws a Bill on the same, and a Member accepts it; this, perhaps, may make him liable, but no other Member. Likewise, if 10 Merchants employ a Factor in some foreign Port, and the Factor draws a Bill on them all, and one of them accepts the Bill, but afterwards refuses Payment; this does not affect the rest. But if there be three joint Traders for the common Stock and Benefit of all three, and their Factor draws a Bill on them, the Acceptance of the one will oblige the rest of the Company.

A Man's Wife, a Friend, or Servant, can't accept a Bill of Exchange in his Absence, without sufficient Authority from him by Letter of Attorney under his Hand and Seal, deliver'd in the Presence of sufficient Witnesses for the doing of it. A Man's Word, as if he should say to his Wife, Friend, or Servant, *If any Bill of Exchange should come drawn upon me, in my*

Absence, accept them for me; it is not sufficient: Neither will a bare Letter serve, written to his Wife, Friend, or Servant; but there must be Hand and Seal, and Witnesses, which, if Occasion should be, may prove his legal Consent to such Acceptance. But if the Wife or Servant have formerly accepted several Bills of Exchange during his Absence; and when return'd to Town he approv'd of it, and paid those Bills from Time to Time, and this could be prov'd, it would appear, perhaps, in the Eye of the Law, a sufficient Authority.

If a Bill is left with a Merchant to accept, and he loses the Bill, or, at least, it is so mislaid that it can't be found; the Party must request the Merchant to give him a Note for the Payment, according to the Time limited in the *Bill of Exchange*; otherwise there must be two Protests, one for Non-acceptance, the other for Non-payment. But if a Note be given for Payment, and there happens to be a Failure; yet, in that Case, there must be a Protest for Non-payment. If we should lose a Bill after we have got it accepted, as soon as we miss it, we should give Notice of it to the Person that accepted it, that he may stop it if it should be brought for Payment: If we should suspect that the Acceptor will not regard our Notice, we may forewarn him at his Peril not to pay the Bill to the Bringer, without our special Order; and this by notifying the same to the Acceptor, by a Publick Notary, which will serve for a Testimony that the Bill is lost; and when the Bill becomes due, we may receive our Money; for the Acceptor is not exempted from paying because the Bill is lost: For if he refuses Payment, under Pretence that the Bill should be produced, he may be sued at Law for the Money, (without the accepted Bill) and be compelled to pay it, with Costs and Damages.

But perhaps the Bill is lost, when left to be accepted, either by the Person it was left with to be accepted, or by his, having delivered it, or his Servants, to a wrong Person: In this Case, the Person the Bill was drawn upon, must either pay the Money upon the second Bill, if it comes to Hand within the Time; or, in Default thereof, give a Note under his Hand, for the Payment of the Money mention'd in the Bill to the Party it is made payable to, or his Assigns, at the Time limited in the Bill: But in Case the Person that thus loses the Bill should refuse to give such a Note under his Hand, then he that presents the Bill, or the Person that left it to be accepted, must presently cause a Protest to be made in due Form, and send the Protest away by the first Post; and likewise make a Demand for the Money at the Time it falls due, tho' he has neither Note, nor Bill of Exchange; and in Default of Payment, he must cause a second Protest to be made, and sent away as the former: But in Case there is such a Note made, and no second Bill comes to Hand, he must go to receive the Money upon that Note, and, in Default of Payment, cause a Protest to be made for Non-payment upon that Note, as if he had had the accepted Bill, or the second Bill was come to Hand, but not paid at the Time it fell due.

It often happens, that a Bill is drawn upon one Place, and made payable to another. For Instance, a Merchant in *London* orders his Correspondent at *Rouen* to load a Ship at that Port for his Account for *London*, and the Loading comes to 9000 Livres; the Merchant of *London* having Effects to that Value in the Hands of another at *Paris*, he draws a Bill upon that Merchant, payable in *Rouen*; in which Case, that Merchant in *Paris*, when he accepts the Bill, must mention, in the Acceptation, the Name of his Correspondent at *Rouen*, at whose House the Payment of the Bill is to be made; as is seen in the following Model.

Exchange 9000 Livres, London, 1^{re} June, 1742.

At two Usance, pay this my first of Exchange in the City of *Rouen*, to M. A. B. Merchant there,

or Order, the Sum of 9000 Livres Value, in Account with him, as *per* Advice, from

Tours, &c.

To *George Waters*,
Merchant in *Paris*.

D. C.

Accepted to pay at the House of *M. A. B.*
Merchant in *Rouen*.

A Bill being thus drawn up, and accepted by a Merchant in *Paris*, to be paid at *Rouen*; the Acceptor at *Paris* must take Care to remit the Value to his Friend in *Rouen*, at whose House the Bill is to be paid; which if he fails to do, the Bearer of the Bill, upon Refusal or Neglect of the Payment at *Rouen*, is not to send the Bill to be protested at *Paris*, at the House of the Acceptor, but must immediately get it, to be protested at *Rouen*, at the House where it ought to have been paid; which being done, the Acceptor at *Paris* becomes liable to all the Damages that happen to the Drawer or Endorser, as much as if the Bill had been protested at *Paris*.

Where a Merchant has accepted a Bill, and before that Bill becomes due himself becomes insolvent, or at least has lost his Credit, there must be a Protest; but previously to it a Demand is made, which once coming, the Drawer is compellable to give better Security.

If a *Bill of Exchange* be paid before it is due, and he to whom 'tis paid breaks afterwards; he that has paid it shall be compell'd to pay it again to the Deliverer of the Money, within the Time it is payable.

If a Bill be accepted, and the Party who has accepted it should die before it is due; there must be a Demand made of his Executors, or Administrators; and, in Default or Delay of Payment, a Protest must be made: And tho' it may fall out that the Money may become due before there can be Administrators, or the Probate of the Will be granted; yet that is Delay sufficient for a Protest, in Case of Non-payment; so that if the Acceptor dies before the Bill becomes due, we must, at the Time the Bill falls due, demand the Money of his Executor, &c. at his last Dwelling-House, or Place of Abode; and, upon their Refusal, or Delay of Payment, protest for Non-payment in the same Manner we would have done if the Acceptor had been living, and had not paid it at the Time it fell due.

If the Party to whom the Money is to be paid dies before it is due, and the Money is ready to be paid, and there is no Person that can legally give a Discharge, yet a Protest is not to be made for Non-payment, because there is no Person that has any Authority, either in Deed, or in Law to make it; and a Notary ought not to make it, for if he does, and the Party has receiv'd any Prejudice thereby, an Action of the Case may be against him for his Pains: As it avails not that a Security is offer'd to save him harmless against the Executors or Administrators, for that is an Act left to their own Discretion; for perhaps the Security may not be lessen'd: But whether good or bad, makes nothing as to oblige him in Law.

If a *Bill of Exchange* is sent to you to get accepted, and you should carry it, and find no Body at Home at the Dwelling-House, or Place of Abode of the Person the Bill is drawn upon, nor any Body to appear in his Behalf; you must cause a Protest to be made, either for Non-acceptance, or Non-payment, at his Dwelling-House, or Lodging; which is as effectual as if the same had been made to him in Person: For if no Protest could be legally made without speaking to the Party himself, a Protest might be prevented at Pleasure; but it is not in the Power of the Person the Bill is drawn upon to hinder the protesting of a Bill.

If a *Bill of Exchange* is made payable positively to such a Person, and not to such a Person or his Order, or his Assigns; then an Assignment upon the Bill signifies nothing; but the Money, in the Strictness of the Letter, must be paid positively to such a Man in Person; and he must be known to be the same Man men-

tion'd in the *Bill of Exchange*, that the Money may not be paid to a wrong Person, and so the Acceptor be forced to pay it over again; and if the Bill is made payable positively to such a Person, as it was said before; such Person's Name written upon the Back of the Bill in Blank, is no sufficient Warrant for another Person to come in his Name to receive the Money, but the Party himself, the Bill is payable to, must appear in Person.

If a *Bill of Exchange*, by contrary Winds, or other Inconveniencies, be so long in the Way that the Usage, or Time limited in the Bill be expir'd, and being tender'd, both Acceptance and Payment are denied; Protest for both must be made, and the Drawer must answer the Value Re-change and Damage.

If, through a Mistake, the Figures, and the Words of the same Sum in the Bill at Length should disagree, *i. e.* either the Figures should express more, and the Words less; or the Words more, and the Figures less; in either, and all such Cases, we ought to mind the Words at Length, and not the Figures, until we receive further Advice concerning the same: Because a Person is more subject to mistake a Figure, than a Word. Besides, the Figures at-top of the Bill serve only, as it were, for Abbreviation of the Contents; but the Words at Length are in the Body of the *Bill of Exchange*, and are the chief Substance of the Bill, and therefore are more to be minded; and tho' it may fall out that the Sum mention'd in Figures in the Letter of Advice, and the Sum in Figures in the Bill of Exchange, do agree; yet if the Sum mention'd at Length in the same Bill disagree, we are to follow the Order mention'd in Words at Length in the Bill, and not the Order in Figures, for the Reasons aforesaid.

If the Name of the Party the *Bill of Exchange* is payable to should chance to be alter'd, or interlin'd in the Bill, and the Bill is accepted by the Party it is drawn upon; it is no sufficient Warrant for the Acceptor to refuse Payment when it becomes due, to the Party whose Name is mended or interlin'd in the Bill, or to his Order, or Assignment, if the Bill was so mended when he accepted it; for he could not but take Notice of the Error before he accepted it, and ought to have satisfied himself about it before he accepted it: And if he should say that it was not so mended or interlin'd when he accepted it, that he must prove.

If a *Bill of Exchange* comes without being directed to any Person, but in the Letter of Advice to the Person it is payable to, the Name of the Person it is drawn upon is mention'd, that Person in whose Favour that Bill is drawn, ought to present it for Acceptance; and in Case the Person refuses to accept it, because there is no Direction to him upon the Bill, the Party that presents that Bill for Acceptance ought to protest it for Non-acceptance; for then he protests against the Drawer, because he should have taken Care to direct the Bill, that it might have been accepted by some Body, and the Drawer is to bear the Charges thereof, for his Omission and Oversight: But, however, if the Person the Bill is presented to has Advice of the Bill from the Drawer, he may, upon sufficient Ground, accept the Bill upon that Advice, altho' the Direction to him be omitted upon the Bill.

Any Time before the Money becomes due, the Drawer may countermand the Payment of a *Bill of Exchange*, altho' the Bill has been accepted. The Countermand is usually made before a Notary, but if it comes without, so that it comes under the Party's Hand, it is well enough. If the Bill be accepted, and the Party desires to have the Money before it is due, and it is paid; and then comes a Countermand, it has been believ'd that it ought not to be allow'd: For as he could not enlarge the Time, so he could not shorten it; for he ought to have followed his Order. Therefore,

It is dangerous to discount, or pay *Bills of Exchange*, before they become due; for if he pays Money on a Bill before it be due, and the Party breaks; it has been conceiv'd, that the Party who pays it ought to

to answer the Drawer, for this Reason, that the Drawer might have countermanded the Payment, or made the Bill to be payable to another. So that if a Bill of Exchange is made payable to Usance, double Usance, thirty Days Sight, or at any longer or shorter Time, and when the Bill is offer'd for Acceptance, or at any other Time before the Bill is due, the Person the Bill is payable to shall desire present Payment upon Consideration of a Discount; or if the Party the Bill is drawn upon, having Money by him, and willing to improve it, should solicit the Person the Bill is made payable to, to take his Money before it is due, with a *Proviso*. of allowing him a Discount; the Party that shall so pay a *Bill of Exchange* before it is due, runs some Hazard in not observing Order: For if the Money remitted be really and properly belonging to the Party that deliver'd the same to the Drawer; and if the Bill be made payable to Factor, Servant, Agent, or Friend of the Deliverer's, only to, and for the Deliverer's Use, and if the Deliverer should send his Countermand before the Bill is due, that the Acceptor may not pay the Money to such Factor, Servant, Agent, or Friend, to whom it was payable by the Tenor of the Bill, but to some other Person he shall appoint: In this Case, the Party the Bill is drawn upon ought to be liable to the Payment thereof, according to that Countermand, to the Person who shall thereupon be appointed to receive the same. For as it is not in the Power of the Person the Bill is drawn upon to prolong the Time for Payment; so it can't warrantably be in his Power to shorten it; for the Agreement is made between the Deliverer and Taker, and therefore particular Regard ought to be had to it; for tho' a Countermand does not happen often, it nevertheless does sometimes; and who can be certain the same may not come to him in the Payment of *Bills of Exchange*, before they become due?

Tho' no greater Affront can be offer'd to a Merchant than to protest his Bills; nothing, notwithstanding, is more common, than such Protest, which is a Summons made by a Notary Publick to a Merchant, Banker, or the like, to accept or discharge a *Bill of Exchange* drawn on him, after his having refused either to accept, or pay the same. It is call'd a *Protest*, because containing a Protestation that the Party will return the Bill, and even take up Money at Interest, and charge all Costs, Damages, Carriage, and Re-carriage, on the Refuser.

There are two Kinds of *Protests*, the one for Want of Acceptance, the other for Want of Payment; the first to be made by the Bearer of the Bill at the Time of presenting it, in Case the Person, on whom it is drawn, refuse to accept it for the Time, or the Sum there express'd. The latter is made as the Bill falls due, whether it have been accepted, or not. The Bearers of *Bills of Exchange* that have been accepted, or which become payable at a certain Day, are oblig'd to have them either paid, or protested within three Days after due, on the Penalty of answering for the Omission: And it must be observ'd, that if the third Day happens to be a Holiday, the *Protest* is to be made on the Eve thereof.

At *Paris* and *Hambourg* the *Protest* is to be made within 10 Days; at *Venice*, where all Bills are paid in Banco, the *Protest*, for want of Payment, is to be made within six Days; but then the Bank is supposed open, otherwise no *Protest* to be made. At *Rome*, *Protests* for want of Payment are to be made within 15 Days. At *Leghorn*, *Milan*, and *Bologna*, there is no Time fix'd. At *Amsterdam*, they are to be made within 5 Days.

The Negotiants of some Places, as those of *Rome*, M. Savary observes, do not look on themselves as oblig'd to protest in Default of Payment; but some condemn this Opinion as contrary to universal Custom and Reason; since, till after Protestation, they have no Remedy or Resource against the Drawer or Endorser, nor any Title to be re-imburse'd. M. Ricard adds, that *Bills of Exchange* drawn from *Amsterdam*, or *Antwerp*, or *Spain*, are to be protested in Default of Pay-

ment, within 14 Days after they fall due; after which Time, the Bearer runs the Risk and Chance of the *non-protested* Bill, not the Drawer, or Endorser; in Case the Party happens to fail after the said 14 Days.

In *England*, a Merchant, upon the Receipt of a *Protest* return'd to him for want of Acceptance, or better Security, must immediately have Recourse to the Drawer or Endorser, with the *Protest*, that upon Sight thereof the Endorser or Drawer may give him such Security as he shall desire, for the Money taken up to repay the same, with Re-change and Costs, in Case the Bill be not paid in due Time. The usual Custom, in that Case, is this; the Drawer or Endorser having receiv'd the Value, must procure some able Man to under-write the *Protest* that comes for Non-acceptance, or for want of better Security, in Words of this Nature: *I W. R. do bind myself as Principal for the Money contained in the Bill of Exchange whereupon this Protest was made, London, this 5th of June, &c.*

If a *Protest* should be return'd for Non-payment, and Security has already been given on the *Protest* for Non-acceptance, or for want of better Security; when the Merchant receives the *Protest* for Non-payment, he may acquaint the Drawer or Endorser with it, then wait about the same Time the Bill was made payable, reckoning it from the Day it fell due, before he demands the Principal, with the Re-change and Charges of the Drawer, or his Security: For, according to the Laws of Merchants, the Drawer, or his Sureties, are oblig'd to pay upon the first *Protest* for Non-payment; but if there comes no *Protest* upon the Bill until it falls due, and then there comes a *Protest* for want of Payment; in such Case, the Merchant must take Security upon that *Protest* for Non-payment, in the same Manner as upon the *Protests* for Non-acceptance, except the Drawer pays him presently the Principal, Interest, and Charges, from the Day the Bill became due, to the very Day he shews him the *Protest* for Non-payment, and he consents to it; for otherwise, in Case a Bill is accepted for Non-payment, and the *Protest* be shewn to the Drawer, he may, if he gives Security, keep one out of the Money for as long a Time after the Bill was due, as the Bill was made payable in, before he can be compell'd to pay. For Instance, suppose the Bill should be dated *London*, the 26th of *May*, and payable at Usance in *Amsterdam*, and protested for Non-payment; the Drawer may claim the like Usance for Re-payment thereof, so as there was one Month for the Exchange of the Money from *London* to *Amsterdam*. So, likewise, there must be another Month for Re-exchange of the Money back again from *Amsterdam* to *London*; and thus it will be two Months before you can have your Money with Re-exchange thereof at *London*: But if the Drawer will not pay, nor yet give Security upon the *Protest*, then you may immediately take a Course in Law against him, and compel him to re-pay the same, with Costs and Damages.

If a Bill is made payable to one Man for the Value of another, and the Party the Bill is drawn upon has accepted it, but at the Time it falls due he fails in the Payment, whereupon *Protest* is made for Non-payment; and by Virtue of that *Protest* the Person that deliver'd the Value recovers Satisfaction of the Drawer; in this Case, the Drawer is discharg'd, against the Parties the Bill was made payable to, either immediately in Bill, or mediately by the Assignment, or Assignments, were there never so many on the Bill; so that neither the Person the Bill was made payable to, nor any other Person the Bill shall be assign'd to, ought to molest or trouble the Drawer, or legally, according to the Law of Merchants, sue, or prosecute the Drawer, because he has re-paid the Money to the right Party, whose Receipt and Discharge for the same is a sufficient Release against all further Trouble; neither can he to whom the first Bill is made payable (if but an Assign of the Deliverer) prosecute the Acceptor, after the Drawer has given Satisfaction to the Party that deliver'd the Value, no more than my Assign can protest,

protest, and prosecute a Surety upon a Bond made payable unto me after I have receiv'd Satisfaction from the Principal: For tho' it must be confess'd, in this Case, the Acceptor is not wholly discharg'd, for it is suppos'd he did accept the Bill by Order of the Drawer, or for some other's Account, to whom he must therefore be answerable; yet, in Reference to the Party that deliver'd the Value first, and the Party to whom it was payable, (supposing himself to be only an Assign of the Deliverer) the Acceptor does but only confirm what the Deliverer has done; and the Drawer has made Satisfaction to the Deliverer. The Acceptor is likewise discharg'd against the Deliverer, and against the Person the Bill was made payable to, (if he be but an Assign) but the Acceptor, by Virtue of his Acceptance, makes himself Debtor, and is still liable to the Drawer, or to the Account for which he accepted the Bill, until he makes Satisfaction.

The following Rules are to be observ'd by the Drawer, before the Delivery of a *Bill of Exchange*; and by the Buyer at the Acceptation thereof.

1. The Drawer is bound to furnish the Buyer with *Bills of Exchange* for the Sum agreed on; and they should both see that the Bill is well made, and all the necessary Particulars be duly express'd before the one delivers it, and the other takes the same.

2. A Buyer acts imprudently, if he should accept of one sole Bill for a Sum negotiated, altho' the same should be payable to himself.

3. A Drawer is oblig'd, according to the Notice or Direction given him by the Buyer, to divide the Sum agreed on into as many *Bills of Exchange* as the Buyer desires, or has Occasion for; and the Buyer is oblig'd to accept of several *Bills of Exchange*, drawn upon several Persons, which, together, amount to the Sum agreed on.

4. A Drawer is to blame when he makes two or three *Bills of Exchange* for the same Sum, and of the same Contents; but if the Buyer desires it, he may make one for the Sum he shall require, and divide the others into different Sums, amounting, in all, to the desir'd Sum.

5. A Drawer must be careful that he does not make two first, or two second *Bills of Exchange*, for one and the same Sum, but clearly distinguish the same in the Body of the Bill, and also in the Superscription; and it is prudent in a Drawer, if a second *Bill of Exchange* be desir'd of him, for any Sum whereof he is not sure whether he has already made a second, or not, to make a third Bill instead of a second, or a fourth instead of a third, if ask'd of him, if he is any ways doubtful of his delivering out such Bills before. And the Drawer must always be mindful, that all the *Bills of Exchange* he makes for one and the same Sum, be dated alike, and be alike in all the Parts of the Contents, and Superscription; only with this Distinction, that it be a first, second, or third *Bill of Exchange*.

6. The Drawer may make the *Bill of Exchange* for the Account of whom he pleases, and the Person drawn upon may bind himself, by the Acceptation of his Servant, if he be abroad himself. A prudent Drawer will make no *Bill of Exchange* payable upon Sight, but some Days, Weeks, or Months after Date, or Sight. Nor will he make any *Bill of Exchange* payable to the same Person that he draws it upon, except he is well satisfied of his Sufficiency, fair Dealing, and Honesty.

8. A Drawer is oblig'd, at the Desire or Request of the Buyer, to alter the *Bills of Exchange* in the Manner he shall desire, altho' they shall be made according to his first Order or Directions, whether he would have them payable to another, or the Sum divided, if no Body else have put their Hands to them; but it is with this Condition, that the Buyer must pay the Postage of the Drawer's Letters of Advice to the Acceptor, concerning such Alterations: But when the Bill is accepted, or endorsed by another Party, the Drawer must be very cautious of altering any Thing.

9. A Drawer must also be careful he does not alter

any Thing in one of the *Bills of Exchange*, and leave the others unalter'd.

10. A Buyer must be prudent in treating about, or accepting ready-made Bills, drawn and accepted by a sufficient Man, tho' he knows his Hand Writing, when the Seller is a Stranger to him; and he must be cautious of taking *Bills of Exchange* that are payable to the Order of the Drawer, or endors'd by him, when he does not take the Drawer to be very sufficient, and when the Acceptor is unknown to him.

11. When in contracting or closing of the Bargain the Broker has positively pass'd his Word to the Buyer that the Drawer shall furnish him with Bills ready made, drawn, or endors'd by a Party known to the Buyer to be a sufficient Man; in such Case, the Buyer is not oblig'd to accept of the Drawer's own, or unaccepted Bills, or any other endors'd by him.

12. If we agree for Bills upon Sight, we are not oblig'd to accept of *Bills of Exchange* that are expir'd, or whereof the Days of Grace are expir'd, or near expiring, before the Bill arrives at the Place where the Payment is to be made; except we get the Seller to warrant us that we have our Recourse to him, notwithstanding the Expiration of the Days of Grace. The Bill must be presented for Payment, and, if refus'd, must be protested.

A Merchant is also oblig'd, if he designs to deal fairly, and in a regular Way, to keep an Account of the Exchange, in the following Manner:

1. Before he delivers a Bill to Broker or Buyer, he must write down distinctly and exactly, in his Books, the Contents of it, and mention the Day when, whether, or to what Place or Fair, in whose Name, and for whose Account, what Sum, and at what Rate he draws, and at what Time, and to whom payable; that in Case of any Accident, a third or fourth *Bill of Exchange* being ask'd, he may be able to make it all together of the same Tenor with the first and second.

2. A Buyer should, upon the Receipt of a Bill, or at least before he pays the Drawer the Value, book it, whether he remits or disposes of the Bill to draw it back again.

3. When *Bills of Exchange* of the Bearer endorsing are deliver'd to the Buyer, he must set down of what Date they are, from whence, and by whom they are made or drawn, of what Sum, when, and to whom payable, at what Price he has negotiated, and to whom the Bills are afterwards endorsed.

4. The Drawer and Buyer of *Bills of Exchange* must set down the Broker's Name, by whom the same has been negotiated, that they may, in Case of any Difficulty, and also in reviewing the Account of Brokerage, know by what Broker the Bargain has been concluded.

5. A Buyer that does not really remit, but dispose of his Money in Exchange for a Time, and gets the *Bills of Exchange* made or endors'd to be paid to his Order, to draw the same in again at a convenient Opportunity, ought also, underneath, or at the Side of the *Memorandum* of such Negotiations of Exchange, to set down the Day the *Bill of Exchange* expires, and ought likewise to leave a Space under the *Memorandum*, that when he comes to draw the Bill back again, or to remit it, he may set down, under the first *Memorandum*, when the Drawing-in, or Transport has been made, to whom the Bill is endors'd, and from whom the Value.

6. When a Buyer sends a *Bill of Exchange*, in order to have it accepted, he must insert, in his Book of Exchange, by way of *Memorandum*, to whom, and when he sent such a Bill, and cancel such *Memorandum* when it comes to Hand again, accepted.

7. He to whom *Bills of Exchange* are sent, to get them accepted, and to keep them till they are re-demanded by the Sender, ought to keep a *Memorandum* from whom he has receiv'd the same, and to whom he delivers them, together with the Day of Expiration, that when the Payment does not happen to be made in due Time, he may, within the Days of Grace, by
Virtue

Virtue of the accepted Bill, solicit and secure the Payment, by getting other Securities, or the Money paid into a third Hand, if any Dispute should happen.

8. As soon as a Merchant receives Bills remitted to him, or at least before they are deliver'd for Acceptance, he must book them, and take Notice from what Place, by whom, for whose Account, in whose Letter, of what Date, what Sum, upon whose Account, when and to whom payable, Remittances are made to him; and when a re-drawn or endors'd Bill comes, must then add to it, when and where expir'd, and how the same is afterwards endors'd to him; and besides, when the Bill is remitted for his Account, at what Rate his Correspondent has negotiated it, and for what Sum, to credit it for it accordingly.

9. As soon as a Merchant receives Advice from the Drawer that he has drawn upon him, he must book the Bills down, mentioning from what Place, by whom, what Sum, of what Date, and to whom, or to whose Order payable, and at what Price, and for what Sum; that he may charge it to the Account of his Correspondent, without waiting for the Presentation to be accepted.

10. When he has receiv'd Advice that a Bill is payable to Order, he must note the Time it is presented for Acceptance, and whether there be any Endorsement on it; and at the Day it expires, before the Payment is made, he must set down all the Endorsers Names, in the same Manner successively they stand upon the Bill.

11. The Acceptor must always be careful to mark in his Book the Time when he accepts a Bill, and if any more Bills should come to his Hands of the same Tenor and Date from the same Drawer, and any Endorsements should be on them; he must make a *Memorandum* of the Names, and advise the Drawer thereof that he has accepted the first or second Bill, which came first to his Hand.

Merchants who deal in *Exchange*, must be very punctual to give Advice, and to return Answers. The Drawer must give Advice to his Correspondent by the first Post, of what Bills he shall draw, that the Bills may not come to his Hands for Acceptance before he has Notice of it; and in his Letter of Advice be very particular in mentioning for whose Account the Bills are drawn, what Date they bear, for what Sum, to whom, when payable, and from whom the Value is receiv'd, &c.

When *Bills of Exchange* are for Account of the Drawer, or a third Party, and not for him they are drawn upon in a foreign Denomination of Money, or in Money unknown in the Place of Payment; in such Case, let the Bill be for whose Account whatever, the Price of *Exchange* must be given Notice of in the Letter of Advice, as well as the Sum drawn for.

The Design of a Drawer giving Advice, is principally to request or order his Correspondent he draws upon, to honour the Bill with Acceptance when it shall come to his Hands, and to recommend the Payment of it when it shall fall due, so that he may enter it in his Books accordingly. It is likewise usual for a Drawer to confirm his first Advice by the first Post, and if the Bill be on Sight for a considerable Sum of Money, to give Advice of it by several Ways, if it be possible.

When a Bill lies unaccepted, the Remitter ought to recommend to his Correspondent the Bill sent for procuring Acceptance, to get it accepted; and in Case of Refusal, to do what is wanted according to the Law of *Exchange*. He that remits, ought also to inform his Agent or Correspondent he sends the Bill to, for whose Account he does remit, for what Sum, in whose Bill, of what Date, when, to whom payable, and, if the same be for Order, by whom endors'd.

When an accepted Bill lies in the Presenter's Hands who procur'd the Acceptance at the Place where the Payment is to be made, and it should not be noted in an unaccepted Bill that is endors'd; then the Remitter must mention, in his Letter of Advice, with whom the accepted Bill is to be found.

The Remitter must take Care that the *Bill* or *Bills of Exchange* which he remits be sent to the right Party who is to procure the Payment, or to him they are made payable to, or endors'd, and that they be not inclos'd in a wrong Letter, nor directed to a wrong Place. He must never send a first and second Bill by the same Post, or together, but one after another; that in Case one should fail, or not fall into the right Hands, his Correspondent may get the second Bill, and by the same may demand the Acceptance and Payment. When he has but one single accepted Bill, or when the accepted Bill is at the Place where the same is payable, so that he can send but one Bill; in such Case, the Remittances that are made must be confirm'd clearly by the following Post, with the Circumstances, and Contents of the *Bill of Exchange* that has been sent; the Party it is remitted to may apply himself to him upon whom it is drawn with this Letter of Advice, and forbid him to make Payment of it to any Body but himself; and at the Day of Expiration itself, no Body appearing to demand the Payment, by Virtue of this Post, Advice, or Confirmation; he may persuade him that it is drawn upon to pay him upon Security, or to consign the Amount of the *Bill of Exchange* in another Hand, or upon Refusal of both to protest against him.

A Drawer or Remitter for Account of a third Person, must be quick in giving Advice to the said Party, for whose Account a Sum is drawn or remitted, mentioning to what Place, to whom, and what Sum, the Time when payable, at what Price, and how much he is charged or credited for the same.

If a Bill is drawn upon a Merchant, if it should be doubted, he must immediately write to the Drawer, to know if he does accept the drawn Bill for Account of him that is mention'd in his Letter of Advice, or not; and if he should make a Difficulty to accept the same as it is, he must immediately give the Drawer Notice of it, and desire his further Advice, and not stay till the Acceptation shall be demanded of him.

When no sudden Advice can be given whether the *Bills of Exchange* will be accepted, or not, either because he that it is drawn upon lives out of the Way, or could not be met with; or because the same is kept in Suspence: It is nevertheless the Duty of him a Bill is sent to, in order to provide for Acceptation thereof, to give the Remitter Advice of it; and if the Acceptation be made afterwards, to give him also Advice that he has got it accepted: However, this last Advice may be spar'd, if he gives Notice in his first that he will use his Diligence to get it accepted, or upon Refusal, protest: So that when by the next Letters no Protest follows, the Remitter will judge that the Bill is duly accepted.

When Bills are drawn, or Remittances are made for the Account of the Drawer, or Remitter, or a third Person, or do only concern them in Part; then he that is drawn upon, after Payment is made, should give Notice of it to each of his Correspondents that is concern'd in the same. But when the Bills are drawn, or Remittances are made for the Account of him they are drawn upon, or remitted to; then it is unnecessary to give any Account of the Payment.

He that receives Advice that he is to be drawn upon, must, by the first Opportunity, write back to his Correspondent whether he will accept and honour such a Bill, or not.

He that deals in *Exchange*, must trust, but he must consider whom he does trust; the Buyer must look to the Sufficiency of the Drawer, and the Drawer to that of the Buyer. Nor should the Buyer pay his Money without he has the Bills; nor should the Drawer give up the *Bills of Exchange* without getting Payment of the Value, which is commonly paid in ready Money; and if the Drawer pleases, he may take Goods for the Value, instead of Money, Goods being deem'd in Payment the same as ready Money.

At *Amsterdam*, all *Bills of Exchange* for 600 Guilders, and upwards, must be paid in the Bank of *Exchange*,

change, under Penalty of 25 Guilders for each Offence. And that Brokers may not offer themselves, nor suffer themselves to be employ'd in the discounting or paying any *Bill of Exchange* of 100*l. Flemish*, or upwards, out of the Bank, or to evade the Law, shall make a Bill for a lesser Sum, *viz.* instead of one Bill for a larger Sum, shall make two, or more lesser Bills for the same Sum; in such Cases, they are liable to be depriv'd of their Employ.

A Buyer is not to delay the Payment of the Value, except at the Conclusion he does positively make it in his Bargain to have a certain Time for paying the Value. When he bargains not to pay the Value until he has Advice that the *Bill of Exchange* is accepted; in making such Bargains it is adviseable for the Buyer to make a Bargain with the Drawer himself. If he has in the Conclusion made his Bargain not to pay the Value of a *Bill of Exchange* before he receives Advice of the Bill being accepted, he is not bound, in Case the *Bill of Exchange* comes back protested, to pay the Value; but if the same is accepted, tho' by one of no great Credit, he is oblig'd to pay the Value.

At *Amsterdam*, a cautious Buyer will not pay the Value of a *Bill of Exchange* discounted in current Money, but upon an Assignment or Acquittance of the Drawer plainly expressing that such Sum is in Payment of such a *Bill of Exchange*; nor will he pay the Value of a Bill by Transcription in the *Bank of Exchange* upon another's Account, but by an Order of the Drawer in Writing. He also takes Care to not pay the Value, which he is oblig'd to pay in *Banco*, in current Money, without an Assignment or Acquittance, by reason such a Payment is not valid by the Statutes.

When a Drawer, at *Amsterdam*, has the Value of a *Bill of Exchange* transferr'd by another Party for the Buyer's Account, if the Transferrer does not express in the Assignment of the Sum transferred for whose Account he should demand from such Party, under his Hand, an Act or Writing, wherein must be acknowledged that such Sum or Parcel has been transferred by him for the Buyer's Account.

It is not adviseable for Drawers to make *Bills of Exchange* payable to Order, in all Cases; nor a Buyer, for his own Account, will cause *Bills of Exchange* to be made, or endors'd, payable to the Order of his Correspondent, whom he remits a Bill to, when such Correspondent lives at the Place where the Bill is to be paid; neither will he cause (if he deals for his own Account) his *Bills of Exchange* to be made payable to his own Order, and endorse the same: For if he should, he will make them his own Bills, and bind himself to make good the Re-exchange and Charges, &c. but when he gets them made directly payable to his Principal, or Order, he is answerable for no more than the Sum he receives. If for Account of another, to remit to a third Party who lives at the Place where the Bill is to be paid, he must not get the Bill made payable to the Order of him to whom the Bill is remitted, except he has positive Orders for it from his Principal, for whose Account he remits.

If we remit for our own Account with Design to draw the Money back again, or to get it drawn back again for another's Account to some other Place, we must take Care that the Bills be made to his Order, or endors'd to the Order of him who shall draw them back, or shall cause them to be drawn back; for no Body can draw a *Bill of Exchange* back, nor discount it again, except the same be made payable to his Order; since a *Bill of Exchange* that is directly payable to one, must be paid to the same, and may not be paid to another, without an Endorsement.

In the discounting of a *Bill of Exchange*, the Discounter is absolutely look'd upon as Drawer, and whom he discounts with as Buyer; so that an Endorser of a *Bill of Exchange* is as strictly bound for the same, as the Drawer; and the Bearer of the *Bill of Exchange* has as much, and the same Right upon him, as upon the Drawer.

An Acceptor, or the Party the Bill is drawn upon, is free, as well as another, to discount a *Bill of Exchange* upon his own Account, that is payable to the Bearer, or first Endorser; and when he gets it endors'd by the Discounter, he may discount the same Bill again, and draw, or cause it to be drawn in, and the first Endorser's remain, for all that, no less bound for the same.

In the exchanging to, or upon any Place, the Buyer or Bearer may demand the *Acceptation* of a *Bill of Exchange* as soon as it shall come to Hand; but such *Bills of Exchange* as are payable at Fairs or Markets, no *Acceptation* can be demanded sooner than at the Fair or Market. Not only the Purchaser, Owner, or Proprietor of a *Bill of Exchange*, but whosoever is entrusted with it, is qualified to demand the *Acceptation*.

It lies in the Choice of the Party drawn upon to accept the Bill, or not; nor is a Master bound to accept *Bills of Exchange* drawn by his Factor, Agent, or Servant, in his own Name. Altho' the Party the Bill is drawn upon has promis'd the Drawer, by Letters, to accept and pay his Bills for Account of a third Party; he can't, however, be forc'd by the Presenter or Bearer to accept the Bill upon that Promise: But, nevertheless, he remains accountable to the Drawer, for so far as he can shew, and make it appear, that relying upon, and trusting to that Promise, he has concern'd himself with that third Party, for whose Account he has drawn such *Bills of Exchange*.

He that keeps a *Bill of Exchange*, drawn for some Time after Sight, or at Usance, (where the Usance is reckon'd from the Time of the *Presentation*) for some Days together in his Hands, without declaring whether he shall accept the same, and afterwards resolve upon it; he is oblig'd to date the *Acceptation* from the Day the *Bill of Exchange* was first presented to him.

When a Drawer is dubious whether the Party he draws upon will accept his Bill, he ought, at the same Time, to recommend it, or get it recommended to some other Merchant residing at the Place upon which it is drawn, that in Case the other should refuse, he may honour it with *Acceptance*.

When a *Bill of Exchange* is remitted, in order to get it accepted, the Party who sends such Bills ought to let his Correspondent know whether he should keep it by him, or return it again after it is accepted.

When a *Bill of Exchange* is presented for *Acceptation*, the Acceptor ought to examine whether the Tenor and Contents of it be conformable to the Advice of the Drawer before he accepts it.

An Acceptor must be cautious of accepting a *Bill of Exchange* without Advice from the Drawer; and he must likewise be as cautious of accepting a Bill prior to the Date of the last Letters, by the Post from the Place where it was drawn, if they make no mention of that Bill, tho' the Presenter delivers a Letter of Advice with the Bill.

A Person upon whom a Bill is drawn by an unknown Hand, in the Name of a third Person, is not to accept the same without some Advice from the Person upon whose Account he accepts it.

When a Bill is presented to us for *Acceptation*, and we are suspicious that we have already accepted one of the same Tenor and Date, we ought not to do it, but under *Protestation*; that in Case such another Bill be already accepted, the *Acceptation* of the last shall be void, and of no Effect.

A Servant must be prudent in accepting of the *Bills of Exchange* which his Master draws upon him; for when they are drawn upon him, and he accepts them in his Name, he thereby binds himself personally, and must pay as certainly as if it had been his own Debt, tho' he drives no other Trade but for the Account of his Master; but the Effects which the Servant has in his Possession belonging to his Master, are on the other Side engag'd to him, and so far as they shall fall short, he becomes Creditor to his Master. If

If he accepts a *Bill of Exchange* drawn simply upon himself, tho' he does it in his Master's Name, himself is liable for the Payment; but if the Bill be drawn upon his Master's Account, he is not liable.

To facilitate the *Commerce of Exchange*, the Bankers, Merchants, and Negotiators, of several Places of *Europe*, have introduced a voluntary Custom among themselves, of giving Time to those on whom *Letters of Exchange* are drawn, that they may receive their Provisions to pay the Bill before it falls due; because the Bearer of a *Bill of Exchange* could have it protested for want of Payment at the Day it falls due; and those Days are call'd *Days of Grace*. All *Bills of Exchange* must be paid immediately after those *Days of Grace* are expir'd, and the Bearer can wait till that Time to have them protested, for want of Payment, without running any Risk.

At *Amsterdam*, there are six *Days of Grace* allow'd, after that Day the Bill falls due, including *Sundays* and *Holidays*; and tho' the Acceptor pays on a *Holiday*, the Payment is not reckon'd to be made before the Time, but is good, and well made, and the Bearer must rest satisfied with it. But when the Letter is to be paid in Banco, and the six *Days of Grace* are not yet elapsed, when the Bank is shut up to make new Books, or to ballance its Accounts; the Acceptor can prolong the Payment till the third Day of the opening of the said Bank, and then have his Letter written.

At *Rotterdam*, *Middlebourg*, and *Antwerp*, there are likewise six *Days of Grace* given, including *Sundays* and *Holidays*; but Bills payable at Sight, must be paid according to the Custom, immediately, or 24 Hours after; as likewise at *Cologne*, *Breslaw*, and *Nuremberg*; but in these three last Places the *Sundays* and *Holidays* are excluded. *Venice* gives, also, six *Days of Grace*.

In *London*, there are but three *Days of Grace*. At *Frankfort*, out of the Time of the Fairs, four Days; and the Bills payable at Sight, or at two or three Days Sight, must be paid immediately, or at least in 24 Hours after they have been presented. At *Leipsick* and *Nuremberg*, five *Days Grace* are given between the two Fairs; and likewise at *Ausbourg*, where Bills at Sight are to be paid in 24 Hours, at farthest.

Naples gives eight *Days Grace*; *Dantzick* ten; *Paris*, *Rouen*, *Nantz*, *Bordeaux*, and throughout all the Kingdom of *France*, ten; the Day the Bill falls due excluded; and that of the Protest, *Sundays*, and all Sorts of *Holidays*, even the most solemn, included. *Hambourg* gives twelve *Days Grace*, the Day the Bill falls due included; but no Protest is admitted, *Sundays* nor *Holidays*. *Stockholm* gives, also, twelve *Days Grace*. *Madrid*, *Cadiz*, *Seville*, and throughout all *Spain*, fourteen Days; *Genoa* thirty Days. There is no Time settled at *Leghorn*, *Milan*, nor in several other Places of *Italy*, where the Bearer of a Bill can give what *Days of Grace* he pleases, or have it protested immediately, without any Risk.

There is a customary Time for the Payment of *Bills of Exchange* from one Country to another, call'd *USANCE*, or *Uso*.

The *USANCE* of *Venice*, *Genoa*, *Leghorn*, and of all *Italy*; of *Cadiz*, *Madrid*, *Seville*, and all *Spain*; of *Lisbon*, *Oporto*, and all *Portugal*; are reckoned at *Amsterdam* of two Months current after the Date of the Bills of Exchange.

The *USANCE* of *Paris*, *Lions*, *Rochelle*, *Rouen*, *Nantz*, *Bordeaux*, and of all *France*; of *London*, and all *England*; of *Antwerp*, *Lisle*, *Ghent*, *Bruges*, and of all *Brabant* and *Flanders*; of *Middlebourg*, *Flessingue*, *Rotterdam*, and all other Places of *Holland* and *Zeland*, are at *Amsterdam* of a Month current after the Date of the Bills of Exchange; *Double Usance*, is two Months; and *Half Usance* is always fifteen Days; let the Months in which the Bills of Exchange are due be of 28 or 31 Days.

The *USANCE* of *Dantzick*, and of *Coningsberg*, is at *Amsterdam* a Month's Sight; two *Usances* are two Months; and *Half Usance* is fifteen Days Sight; but of *Dantzick* upon *Amsterdam* the *Usance* is reckon'd of

forty Days of the Date; and of *Coningsberg* of 41 Days; or the *Usance* of *Dantzick* is of a Month and ten Days; and that of *Coningsberg* of a Month and eleven Days.

The *USANCE* between *Amsterdam* and *Dantzick* is of 40 Days Date; and that between *Amsterdam* and *Coningsberg* of 41 Days.

Ordinarily the *USANCE* of *Frankfort*, *Nuremberg*, *Ausbourg*, *Vienna*, and other Places of *Germany*, is reckon'd, at *Amsterdam*, of 14 Days Sight, or after the Bills have been presented; *Half Usance* is of 7 Days, or a Week; and *Double Usance* of 28 Days; or four Weeks; and not a Month after Acceptation. The *Usance* on *Leipsick* and *Nuremberg* is reckon'd in the same Manner.

The *USANCE* of *Amsterdam*, and of all *Holland*; on *Italy*, *Spain*, and *Portugal*, is reckon'd reciprocally of two Months of the Date; on *England*, *Brabant*, *Flanders*, &c. The *Usance* on *Paris*, and all *France*, according to the Ordonnance of *Louis XIV*, is reckon'd of a Month of 30 Days, let the Month have more or less Days.

The *USANCE* of *England*, or *London*, upon *France*, *Holland*, *Brabant*, *Zeland*, *Flanders*, and *Hambourg*, is of a Month of 30 Days, of the Date of the Bills of Exchange; and *Double Usance* is of 60 Days, or two Months; on *Cadiz*, *Seville*, *Madrid*, and all *Spain*; on *Lisbon*, *Oporto*, and all *Portugal*, of 2 Months, or 60 Days; on *Venice*, *Genoa*, *Leghorn*, and all *Italy*, of 3 Months after the Date of the Bills reciprocally between them.

The *USANCE* of *Amsterdam* upon *Frankfort*, *Nuremberg*, *Ausbourg*, *Vienna*, and other Places of *Germany*, is of 15 Days Sight; *Double Usance* of 30 Days; an *Usance* and a Half of 23 Days; and a *Half Usance* of 8 Days Sight. They change on *Hambourg* at so many Weeks of the Date; and on *Breslaw* at 6 Weeks also of the Date: But when the Change is at *Usance*, or *Double Usance*, they are to be reckon'd like those of *Frankfort*, or of *Leipsick*, of 14 Days Sight.

Tho' the Time of the Bills of Exchange payable at *Usance* begins to run from the Day and Date of the Bill or Bills, and ends at the Day and Date which accomplishes the Month, except at *Amsterdam*; it is a very good Precaution to have them accepted.

According to the Custom of *Amsterdam*, when a Bill of Exchange is, for Example, dated the 28th of *February*, payable at a Month of the Date, or at *Usance*, and the *Usance* is reckon'd of a Month of Date, (or after Date) it falls due the 28th of *March*; but when it is dated the 1st of *February*, it falls the 1st of *March*; so that a Bill of Exchange dated *June* 30, will fall due the 30th of *July*; and if it be the 29th of *June*, it falls the 29th of *July*: Thus, according to this Custom, when a Bill of Exchange is payable to one or some Months Date, it falls due the same Day of the other Month the Bill is dated; and if we do not reckon so many Days in that Month, it falls the last Day of the same Month. For Example, a Bill of Exchange drawn from *France*, at *Usance*, dated the 7th of *January*, payable in *Amsterdam* at a Month's Date, falls due in *Amsterdam* the 7th, and not the 8th of *February*. But a Bill of Exchange dated *Old Style*, payable in a Month of the Date, or at *Usance*, in a Place where they follow the *New Style*; does not always become due a Month after the Date of the *Old Style*, but a Month after the Day which follows the Date of the Bill. For Example, a Bill of Exchange dated in *London* the 25th of *April*, *Old Style*, payable at *Usance* in *Amsterdam*, where they follow the *New Style*, does not become due the 25th of *May*, *Old Style*, which is the 5th of *June* of the *New Style*, but the 6th of *June*; for while they reckon'd in *London* the 25th of *April*, *Old Style*, they reckon'd at *Amsterdam*, where they follow'd the *New Style*, the 6th of *May*, *New Style*; from which Time the *Usance* must be reckon'd. On the contrary, a Bill of Exchange dated in *Amsterdam* the 5th of *April*, *New Style*, payable in *London* a Month after Date, does not become

become due the 5th of *May, New Stile*, which is the 24th of *April, Old Stile*, but the 26th of *April, Old Stile*; for while they reckon'd at *Amsterdam* the 5th of *April, New Stile*, they were writing in *London* the 25th of *March, Old Stile*, from which Day the Month or *Ufance* takes its Beginning; which Difference of the *Old* and *New Stile* causes two Days, if the Year be Bissextile, and three if the Year is not; which must be taken Notice of by a Negotiator in Change.

Note, That *Paris, Lyons*, and all *France*: *Madrid, Cadiz, Bilboa*, and all *Spain*: *Lisbon, Oporto*, and all *Portugal*: *Leghorn, Venice, Genoa*, and all *Italy*: *Amsterdam, Rotterdam, Antwerp, Harlem, Middlebourg, Ghent, Brussels, Brabant*, and most of the *Netherlands*; also all the *Catholick Eleſtorates and Principalities*: *Dantzick, Augsbουργ*, and all *Poland*, reckon their Dates by *New Stile*.

Great Britain, Ireland, and all the *Protestant Eleſtorates and Principalities in Germany*; all *Denmark, Embden*, the *Protestant Cantons of Switzerland, Hambourg, East Friezland, Geneva*; all *Sweden, Holstein, Lubeck, Stratzbourg*, all *Saxony, Riga*, and *Leipsick*, reckon their Dates by *Old Stile*, which is eleven Days after the *New*.

Money can also be had on Exchange by way of *Letters of Credit*, which are not *Bills of Exchange*, but produce very good Effects, tho' not so much in use among Merchants, as *Bills of Exchange*, because of the great Risks which those who furnish these Sorts of *Letters*, are oblig'd to run.

There are two Sorts of *LETTERS OF CREDIT*, the one *general*, and the other *special*.

A *General LETTER OF CREDIT*, is open, directed to all Merchants and others, that shall furnish my Servant, Factor, or any other, with such and such Monies; for Repayment of which, he binds himself to answer and pay all such *Bills of Exchange* as shall be drawn upon him, upon Receipt of the Value, by his Servant, Factor, or other Person; if there be really Money advanced on this *Letter of Credit*, and paid to the Factor, Servant, or other, and *Bills of Exchange* are sent to the Party who gave such *Letter of Credit*, and he refuses to accept them; yet according to the Custom of Merchants he is bound to pay: The Reason is, for that there was no Respect had to the Ability of the Taker-up, but to him that gave his *Letter of Credit*; and therefore in such Case, if an Action at Law be brought, the particular Custom, as to that Point, must be carefully set forth.

A *Special LETTER OF CREDIT*, is that which a Merchant gives his Factor, and directed to his Correspondent to furnish his said Factor, with a certain Sum of Money, on his Account, is in the following Form.

London the 1st of June, 1742.

Sir,

Be pleas'd to furnish *John Grove*, my Factor, Bearer of the Present, or to cause that he may have Credit, as far as Two Thousand Rixdollars, to be employ'd in buying Merchandizes, according to the Orders I have given him; of which Sum, or of what he shall have received, you'll be pleas'd to take his Receipts, for which you may draw upon me, and I'll not fail honouring your Letters, as by Advice of

Yours, &c.

To M. Vandrevelt,
Merchant in *Amsterdam*.

To avoid the Inconveniencies which could happen to the Bearer of a *Letter of Credit*, who might be robb'd by the Way, and to hinder those who might rob him, from making any Use of his *Letter of Credit*, he that gives the *Letter of Credit*, must in his Letter of Advice, describe to his Correspondent the Person of his Factor, his Height, his Complexion, his Hair, &c. and the Correspondent must take Receipts for the Sums he pays to the Bearer; and he

must mention in the Acquittance, that he receives them in consequence of the *Letter of Credit* of his Master; in Date of such a Day; it would be still better if the Receipt was put on the Back of the Letter.

There are also *Letters of Credit* furnish'd by a Merchant on his Correspondent, in Favour of a Person, who is not a Merchant; as in the following Form.

Gentlemen,

London, June 20, 1742.

The Bearer of this, called Mr. *Peter Trueman*, Son of Mr. *John Trueman*, going to travel into *Italy*, shall want Money at *Rome*; for his Expences, and other particular Affairs; therefore be pleas'd to furnish him at the said Place, with all the Money he shall want; I'll account for all the Sums paid to him, in sending me the Receipts of the said Mr. *Peter Trueman*; and you may take Advantage of it on me; I'll not fail to answer your Letters with Honour, as by Advice of

Yours, &c.

To Messieurs C. and D.
Merchants at *Lyons*.

A *Letter of Credit* given to a Friend, to receive what Money he pleases, is only to do him Honour; and it would be very dangerous for those who furnish such unlimited Letters, if they did not know very well the Person, to whom they give such Letter; because it might happen that the Bearer, having not all the Prudence one could wish, would take such Sums, which would discommode the Relations of the Bearer, who do not design that their Children should make needless Expences, in Gaming, Carousing, &c. because they are obliged to return the Money given in virtue of the *Letters of Credit*. Therefore the Merchant who gives such Letter, if he finds that the Bearer has not much Discretion, must inform his Correspondent, in the Letter of Advice, that tho' he has desired him to pay, or furnish the Bearer, with all the Money he'll want, he, notwithstanding, must give him but such a Sum; and that if the *Letter of Credit* is indefinite, it is for no other Reason than to do Honour to the Bearer.

He that gives the *Letters of Credit* must take a Writing of the Relations or Friends of those to whom they have been furnish'd, otherwise they would run the Risk of losing their Money; because the Persons to whom those Letters are given, are commonly young Gentlemen under Age, who when of Age, could refuse Payment; and not be compelled to it by Law.

The just and true Exchange of Money, that is, this Day, used in *England* (by *Bills*) is *par pro pari*, according to Value for Value; so as the *English* being grounded on the Weight and Fineness of their own Monies, and the Weight and Fineness of the Monies of each other Country, according to their several Standards, proportionable to their Valuations, which being truly and justly made, ascertains and reduces the Price of *Exchange* to a Sum certain for the *Exchange* of Monies, to any other Nation or Country whatsoever; as for Instance, if one receives 100 *l.* in *London* to pay 100 *l.* in *Exeter*, this is by *Par*.—But if a Merchant receives 100 *l.* in *London* to pay 100 *l.* in *Paris*, there the Party is to compare and examine the *English* Weight with the Weight of *France*; the *English* Standard with the *French* Standard; if that at *Paris* and that at *London* differs not in Proportion, then the *Exchange* may run at one Price, taking the Denomination according to the Valuation of the Monies of each Country; but if they differ, the Price accordingly rises and falls; and the same is easily known, by knowing and examining the real Fineness of a *French* 5*s.* Piece, and an *English* 5*s.* Piece, and the Difference which is to be allow'd for the Want of Fineness or Weight, is the *Exchange*; and so proportionable for any Sum of Money of any other Country, the which is called *Par*, or giving Value for Value.

But the Course of *Exchange* is of later Years abused, and

and now Monies are made a mere Merchandize, and do over-rule Commodities; and Monies rise and fall in Price according to the Plenty or Scarcity of Monies or Bills; so that Sir Robert Cotton, and several others are of Opinion, that there can be no certain Rule set on the Par of Exchange, to answer justly the Value of the Coins of foreign Parts, by Reason of the Diversity of them, and of their intrinsick Value.—However, according to M. Ricard, the Par of several Sorts of Monies compared with the Rixdollar of Holland, is as follows.

The Rixdollar of 50 Stivers, according to this Estimation, is worth, as he tells us,

In France, a French Crown in Specie, whatever be the current Value,

In England, 4 s. 6 d. Sterling.

In Brabant, 48 Stivers, or 96 Deniers Grosses, or Groots.

In Hambourg, the same Number of Stivers Lubs.

In Nuremberg, the Rixdollar of 90 Cruitzers.

In Francfort, the same.

In Dantzick the Rixdollar of 90 Grosses.

In Koningsberg, the same.

In Berlin, the Rixdollar of 30 Grosses.

In Breslau, the same.

In Leipzick, the Rixdollar of 24 Grosses.

In Spain, the Piece of Eight, or *Peso*.

In Venice, 150 Soldi.

In Genoa, the Pezzo of 5 Livres, or 100 Soldi.

In Leghorn, ditto, of 6 Livres, or 120 Soldi.

In Geneva, the Crown of 10 Livres, 6 Soldi of that Place.

The Par of Exchange, by the same M. Ricard, between Paris and

London, the Crown of 60 Sols in Specie, for 54 d. Sterling.

Amsterdam, the same for 50 Stivers.

Antwerp, and } the same for 48 Stivers,

Hambourg, } the same for 48 Stivers,

Spain, the same for the *Peso* of 272 Maravedies.

Portugal, the same for 600 Rees.

Francfort, the same for 73 Cruitzers $\frac{2}{3}$ of Exchange.

Nuremberg, the same for 90 Cruitzers current.

Venice, 100 ditto for 100 $\frac{2}{3}$ Ducats Banco.

Between London and

Paris, 54 d. Sterling for the French Crown of 60 Sols in Specie.

Amsterdam, 1 l. Sterling for 37 s. $\frac{4}{5}$ d. or 444 $\frac{4}{5}$ Grof.

Hambourg, and } 1 l. Sterling for 35 s. 6 d. $\frac{2}{3}$, or

Antwerp, } 426 $\frac{2}{3}$ d. Grof.

Spain, { 74 d. $\frac{11}{12}$ Sterling for the Ducat of 375 Maravedies.

{ 74 d. Sterling for the *Peso* of 272 Maravedies.

Portugal, 7 s. 6 d. Sterling for the 1000 Rees.

Between Amsterdam and

Paris, 50 Stivers for the French Crown in Specie.

London, 444 $\frac{4}{5}$ d. for 1 l. Sterling.

Spain, 137 d. $\frac{11}{12}$ for the Ducat of 375 Maravedies.

Portugal, 66 d. $\frac{2}{3}$ for the Crusade of 400 Rees.

Antwerp, 100 d. for 96 d.

Dantzick, and } 1 l. for 216 Polish Grosses.

Koningsberg, } 100 d. for the Rixdollar of 90 Cruitzers current.

Francfort, { 88 d. $\frac{2}{3}$ for the Florin of 65 Cruitzers of Exchange.

Hambourg, 33 Stivers $\frac{1}{2}$ for the Dollar of 2 Marks, or 32 Stivers Lubs.

Nuremberg, 72 d. $\frac{1}{2}$ for the Florin of 65 Cruitzers current.

Venice, 99 d. $\frac{1}{2}$ for the Ducat of 24 Grosses Banco.

Leghorn, 100 d. for the Pezzo of 6 Lires.

Genoa, 100 d. for the Pezzo of 5 Lires.

Between Antwerp and

Amsterdam, 96 d. for a 100 ditto.

Hambourg, the same for 48 Stivers Lubs.

Paris, Crown 60 Sols in Specie for 48 Stivers Lubs.

London, 35 s. 6 d. $\frac{2}{3}$ for the Pound Sterling.

Francfort, 88 d. $\frac{2}{3}$ for the Florin of 65 Cruitzers of Exchange.

Nuremberg, 69 d. $\frac{1}{2}$ for the Florin of 65 Cruitzers current.

Venice, 95 d. $\frac{2}{3}$ for 1 Ducat Banco.

Between Hambourg and

Paris, the Rixdollar of 48 Stivers Lubs for the Crown of 60 Sols Specie.

London, 35 s. 6 d. $\frac{2}{3}$ for 1 l. or 20 s. Sterling.

Spain, 132 d. $\frac{11}{12}$ for the Ducat of 375 Maravedies.

Portugal, 64 d. for the Crusade of 400 Rees.

Venice, 95 d. $\frac{2}{3}$ for 1 Ducat of Venice.

Amsterdam, the Dollar of 32 Stivers Lubs for 33 Stivers $\frac{1}{2}$.

Antwerp, the same for 32 Stivers.

Francfort, the Dollar of 32 Stivers for 49 X $\frac{1}{2}$ of Exchange; or 100 Rixdollars for 99 $\frac{2}{3}$ Rixdollars Francfort of Exchange.

Dantzick, and } the Dollar of 32 Stivers Lubs, for

Koningsberg, } 61 Polish Grosses $\frac{1}{2}$.

Nuremberg, the same Dollar for the like Number of Cruitzers current of Nuremberg.

Between Francfort and

Paris, 73 X $\frac{4}{5}$ of Exchange for the French Crown in Specie.

Venice, 122 Florins $\frac{2}{3}$ of 60 X of Exchange for 100 Ducats Banco.

Amsterdam, the Florin of 65 X of Exchange for 88 d. $\frac{2}{3}$ Grosses.

Antwerp, the same.

Hambourg, 100 Rixdollars for 99 Dollars $\frac{2}{3}$ of Exchange.

Nuremberg, 100 Florins of 60 X of Exchange for 120 Florins $\frac{2}{3}$.

Between Nuremberg and

Paris, 90 X or Cruitzers current for the French Crown in Specie.

Venice, 148 Florins $\frac{4}{5}$ current for 100 Ducats Banco.

Amsterdam, the Florin of 65 Cruitzers current for 72 d. $\frac{2}{3}$ Grof.

Antwerp, ditto for 69 d. $\frac{1}{2}$ Grof.

Hambourg, 32 Cruitzers current for 32 Stivers Lubs.

St. Gale, 100 Florins Current for 113 Florins $\frac{1}{2}$ of St. Gale.

Between Venice and

London, the Ducat Banco for 53 d. $\frac{11}{12}$ Sterling.

Amsterdam, the same for 99 d. $\frac{1}{2}$ Grof.

Antwerp, the same for 95 d. $\frac{2}{3}$ Grof.

Francfort, 100 Ducats Banco for 122 Florins $\frac{2}{3}$ of 60 X of Exchange.

Nuremberg, the same for 148 Florins $\frac{4}{5}$ Current.

Paris, 100 Ducats Banco $\frac{2}{3}$ for 100 French Crowns in Specie.

By the foregoing M. Ricard's Account of the Pars of the Exchanges, one may find out with Ease, at any time, what any Country gains or loses in negotiating of Monies by Bills of Exchange from one Kingdom to another; for that Country that receives a lesser Quantity of Money than the Par of the same Sum in other Species, must certainly be a Loser in such Exchange; and on the contrary, if they receive in other Species more than the Par, they must be Gainers by the same. As for Instance:

Suppose the Exchange between London and Amsterdam, is but at 34 s. per Pound Sterling; if the Exchange between London and Amsterdam had been 37 s. 00 d. $\frac{1}{2}$ per Pound Sterling, England would receive the same Quantity of fine Silver, as there is in 20 Shillings Sterling, which is Value for Value; now the Exchange being but at 34, which is less than Par by 3 s 00 d. $\frac{1}{2}$

in 37s. 6d. $\frac{1}{2}$; and if the Exchange should be no higher, for the 20s. Sterling, *England* would then lose about 8 $\frac{1}{2}$ per Cent. but if *Holland* gave *England* in Exchange 38s. for 20s. Sterling, then *England* would gain 11d. $\frac{1}{2}$ in 38s. which is about 2 $\frac{1}{2}$ per Cent.

Likewise, to know the Profit or Loss in a Bill of Exchange drawn at *Amsterdam* upon *Paris*, of 1000 Crowns of 60 Sols *Tournois*, when the Price of Exchange is at 90d. Gros for 1 Crown.

By the Rule it will come 900 $\frac{1}{2}$ d. Gros.

These Deniers Gros reduc'd, will make 225 Florins, of 20 Sols.

But the Business is, to know if the said 2250 Florins Banco Money (or current) are worth at *Par*, more or less, than the abovemention'd 1000 Crowns, which make 3000 Livres *Tournois*. If the said 1000 Crowns, or 3000 Livres *Tournois*, are worth less than the said 2250 Florins, which are suppos'd to be current Money, tho' most of the Changes are made in Bank Money, *Amsterdam* gains, and *France* loses all that will be wanted of the 3000 Livres; but if, on the contrary, the 1000 Crowns, or 3000 Livres, are worth more; it is a Loss for *Amsterdam*, and a Profit for *France*.

If it be objected, that this Knowledge of the Profit and Loss made on Bills of Exchange depends entirely on the Return of the Sums to their Principal, and that the *Par* of Money is but a needless Speculation; it may be answer'd to that, that if the Knowledge of the Profit and Loss made on Bills of Exchange depend on the Return of the Sums to their Principal, the same can't be said of those which never return, by their being employ'd, or spent in the Country, either to buy Merchandizes, or for Board, or other particular Affairs. Besides, if it was wanted to wait that Return, to know the Profit made on a Bill of Exchange; it should be concluded, that at the Time we give or take Money in Change, we do not know it; and if we should not know it, it would be negotiating at a Venture, and without Knowledge, since we should be ignorant of the Profit or Loss we make by our Commerce. And if that Supposition was true, it would be a Thing very prejudicial, not only to the Commerce of the Change and Bank, but likewise to that of foreign Merchandizes. For suppose that a Factor of *Amsterdam* was in *London* to buy some *English* Cloth, or other Merchandizes; and that he should be ask'd for such Commodities, so many Pounds, Shillings, and Pence, Sterling; how could he buy those Merchandizes as he should do, if he don't know the Value of the Pound, Shilling, and Pence, Sterling, in current Money of *Holland*? Likewise, if his Merchant at *Amsterdam* receives afterwards the Merchandizes sent him by his Factor, with the Facture, and sees at each Piece of Cloth what it cost, according to the *English* Measure, and Money; how can he mark the Price he will sell them at, with Profit, if he don't know what they cost him? He'll know, perhaps, what they cost, *English* Money, but that is not enough; for he must know, likewise, what they cost him current Money of *Amsterdam*, that he may be capable to increase it with the lawful Profit he expects to make by it.

After I have treated as briefly as I could of all the different Products of the several Countries of the World a Merchant can deal in; of the Weights and Measures used in Commerce; of their Differences, Rapport, and their Reduction to one another, either for extended Bodies, heavy Bodies, and liquid Bodies; and of all the principal Things relating to Change: I must treat, at present, of the real Monies, and of Change, (of which we have already given a general Idea, both in our Treatise of Coins, and this present Treatise of Commerce, i. e. of the real Monies in the former, and of those of Exchange in this latter) which are in Use among so many foreign Nations; and give an easy Method of reducing one to the

other, and in what Manner are made, reciprocally, Remittances, &c. by Bills of Exchange, beginning by *England*; and observing, previously to it, that in all Countries where there are Banks, (except in *England*, where there is no Difference in the Value of the Monies) the Bank Money is considerably higher than the current Money; and all Bills that are not expressly drawn in current Money are payable in Bank Money, and the Difference of Value between Bank Money and current Money, is call'd the *Agio*, which may be more or less per Cent. according to the Exigencies or Emergencies of the Times: And, indeed, the Word *Agio* is much used Abroad among Negotiators, instead of the Words *Exchange*, or *Change*.

The Price of Exchange of Money from one Country to another, is usually made from and to the most eminent Cities or Towns in each Nation or Country, where the Commerce or Trade is held between Merchants in Exchange of Monies; and the Trade ceasing at any Place, the Price current of Exchange for that Town ceases also with it. For Instance, when the *English* Merchants Adventurers had their Factors and Company at *Delft*, then there was a Price current of Exchange from *London* to *Delft*; but the Company removing from *Delft* to *Rotterdam*, and this last Place and *Amsterdam* becoming the greatest Places of Trade, there is now no Price current of Exchange from *London* to *Delft*, but from *London* to *Amsterdam* and *Rotterdam*. The like may be said of Money in other Towns, which have been formerly Places of great Trade, that have met with the like Fate of *Delft*. However, the current Prices of Exchange between *London* and other Places in *Europe*, &c. where there is a settled Exchange, is as follows:

LONDON gives to HOLLAND.

LONDON gives to *Amsterdam*, *Rotterdam*, *Antwerp*, and *Hambourg*, 1*l.* or 20s. Sterling, for 30 or 38s. of those Countries.

To FRANCE.

London gives to *France* from 25*d.* to 40*d.* Sterling, for 1 *Ecu*, or 3 Livres *Tournois*; and sometimes the Pound Sterling from 20 to 30 Livres, of 20 Sols *Tournois*.

To SPAIN.

Madrid, *Cadiz*, and *Bilboa*, 36 to 62*d.* Sterling, for 1 *Peso*, or Piece of $\frac{8}{3}$, valued at 8 Rials, or 272 Maravedi's.

To PORTUGAL.

Lisbon, and *Oporto*, 52 to 78*d.* Sterling, for 1000 Rees, or 1 Milliera.

To ITALY.

To *Venice*, 40 to 70*d.* per Ducat, of 24 Gros Banco.

To *Genoa*, the same for 1 *Pezzo*, of 5 Livres.

To *Leghorn*, the same for 1 *Pezzo*, of 6 Livres.

LONDON has also an Exchange with *Germany*, *Sweden*, *Denmark*, *Muscovy*, *Switzerland*, *Savoy*, &c. but it is commonly done by the Way of *Amsterdam* and *Hambourg*.

LONDON exchanges with *Ireland* by the Pound Sterling, the latter allowing so much per Cent. in Favour of *London*; and this is more or less, according to the Circumstances and Emergencies of the Times.

There is likewise an Exchange between *London* and the other Towns in *Great Britain*, by the Pounds, with a small Allowance by way of Consideration for the Exchange of so much in the Pound.

The Prices of Exchange of *London*, *Amsterdam*, and *Hambourg*, have a great Influence upon those of all the rest of *Europe*.

DUBLIN, and all IRELAND, exchange with foreign Countries mostly by the Way of *London*; they also exchange, keep their Accounts, and reckon their Monies just the same as they do in *London*.

The Exchange between *London* and *Dublin* varies according to the Demand either of Money or Bills, between 4 and 15 per Cent. Loss to *Dublin*, or in Favour of *London*.

Th:

The Exchange of the ENGLISH PLANTATIONS in America with London, is the same as Ireland, at 10, 20, 30, but commonly more *per Cent.* Loss to themselves, or in Favour of London; and they keep their Accounts, and reckon their Money the same Way as they do in London. They have more *Spanish Money* among them, than any other Coin; and in some Places where Money is scarce, they deal by Truck, or Bartering, and pay their Debts by so many Pounds of Sugar, Tobacco, &c. They deal from Plantation to Plantation, commonly by way of Barter; and likewise draw and remit Money, when Occasion offers:

ENGLAND upon Amsterdam, Lisle, and Antwerp.

A Merchant or Negotiator of London, or any other Place in England, will draw upon or remit to any of the abovemention'd Places, either at Sight, at Ufance, or in a longer or shorter Time, $340\frac{2}{3}l.$ at $32\frac{1}{2}d.$ Gros, to know what must be receiv'd at any of the abovesaid Places.

Operation on Amsterdam.

Multiply $340\frac{2}{3}l.$
By the Price of Exchange, at $32\frac{1}{2}$ Sols Gros, for 1 l. Sterling,
It will come $1107\frac{1}{2}$ Sols Gros.

Take the $\frac{1}{2}$, to have $553l. 11\frac{2}{3}$ Sols Gros;
Multiply then by 6 Florins, Value of the l. Gros,
And you'll have 3321 Florins, 10 Sols, to receive at Amsterdam.

The Par is taken on the Foot of 1 l. Sterling, for $444\frac{2}{3}$ Deniers Gros current.

The Proof is seen by the Change of Holland or Amsterdam upon London.

Upon Antwerp, Lisle, and Middleburg.

Multiply the $248\frac{2}{3}l.$
By the Price of Exchange, at $32\frac{2}{3}$ Sols Gros, or Shillings;
It will come $812\frac{1}{3}$ Sols, $1\frac{2}{3}$ Denier Gros.
Take the $\frac{1}{2}$, to have $406l. 3$ Sols, $\frac{1}{3}$ Denier Gros;
Multiply them by 6 Florins, Value of the l. Gros,
And you'll have 2436 Florins, 18 Sols, 8 Penn. to receive at Antwerp.

The Par is taken on the Foot of 1 l. Sterling, for $444\frac{2}{3}$ Deniers Gros current.

Upon Hambourg.

Multiply the $254\frac{1}{3}l.$ Sterling
By the Price of Exchange at $32\frac{2}{3}$ Sols Gros, or Shillings;
It will come $822\frac{1}{3}$ Sols, $5\frac{1}{3}$ Deniers Gros.
Take the $\frac{1}{2}$, to have $411l. 3$ Sols, $5\frac{1}{3}$ Deniers Gros;
Multiply them by $7\frac{1}{2}$ Marks Lubs, Value of the l. Gros,
And you'll have 3083 Marks, $12\frac{2}{3}$ Sols Lubs to receive at Hambourg.

LONDON upon France Exchange per Ecu.

London negotiates with France $194l. 10s. 6d.$ Sterling; the Exchange at $39d.$ Sterling per Ecu, or 60 Sols *Tournois*; to know how many Livres, Sols, and Deniers *Tournois* it will amount to.

Reduce the Sum of the Exchange, and the Price to be negotiated, both into one Name, viz. into Pence,

l. s. d.
194 10 6
20

3890
12

46686 Pence

Divide by the Price, $39)46686(1197$ Ecu's

76

378

276

Remainder 3

Multiply by 20

Divide by $39)60(1$ Sol

Remainder 21

Multiply by 12

Divide by $39)252(6$ Deniers

18

Multiply the 1197 Ecu's, 1 Sol, 6 Deniers, $\frac{1}{12}$ of an Ecu, by the Livres in an Ecu; viz. 3 Livres;

The Answer will be, 3591 Livres, 4 Sols, 7 Deniers $\frac{1}{12}$, it will amount to *Tournois*.

LONDON upon France per Pound Sterling.

London negotiates with France $476l. 10s. 10d.$ Sterling Exchange, at 22 Livres, 10 Sols, per Pound Sterling; to know how many Livres, Sols, and Deniers *Tournois* it will amount to.

Multiply $476l. 10s. 10d.$
By 22 Li, 10 Sols,

953 01 08

9530 16 08

For 10 Sols

238 05 05

Livres. Sols. Den. *Tournois*.

The Product is the Answer $10722. 03. 09$

LONDON upon Spain.

A Merchant of London, or other Place of England, will draw upon, or remit to Cadiz, Seville, or Bilboa, either at Sight, Ufance, or Double Ufance, $586l. 2s. 6d.$ at $60d.$ per Piafter; to know how much he is to receive at those Places.

Multiply the $586\frac{1}{2}l.$ Sterling
By $240d.$ adding 30 for $\frac{1}{2}$;

It will come $140670d.$ Sterling, to be divided by $60d.$ the Price of Exchange;

The Answer will be $2344\frac{1}{2}$ Piasters, to receive at Seville, Cadiz, or Bilboa.

The Par is taken on the Foot of $54d.$ Sterling for 1 Piafter, or for 272 Maravedi's.

LONDON upon Venice.

A Merchant of London wants to draw upon, or remit to Venice $380l. 12s. 6d.$ it is ask'd how much he is to receive at that Place?

Multiply the $387l. 12s. 7d.$ Sterling
By 240 Deniers, adding 151 Deniers for the $12s. 7d.$

You'll have $93031d.$ to be divided by $62d.$ Price of Change

The Answer is $1500\frac{1}{2}$ Ducats Banco, to be receiv'd at Venice.

The reciprocal Ufances between England and Venice, is of 3 Months Date. The Par is on the Foot of $53\frac{1}{12}d.$ Sterling for 1 Ducat Banco.

LONDON upon Milan.

A Merchant in London desires to draw upon, or remit to Milan, $230l. 13s. 4d.$ we ask how much he is to receive at that Place?

Multiply the $230l. \frac{2}{3}$
By $240d.$ Sterling;

There will arise $55360d.$ Sterling, to be divided by $64d.$ the Price of Exchange.

The Answer is, that the Merchant is to receive at *Milan* 865 Ducats, of 5 Livres, 15 Soldi.

ENGLAND upon Rome.

An *English* Merchant will draw upon, or remit to *Rome*, 237 *l.* 3 *s.* 4 *d.* we ask, how much he is to receive there.

Multiply the 237 $\frac{1}{2}$ *l.* Sterling
By 240 *d.* Sterling,

There will arise 56929 *d.* Sterling, to be divided by 60 *d.* the Price of Exchange.

The Answer is, that he must receive at *Rome* 875 $\frac{2}{3}$ Ecu's of Stamp.

ENGLAND upon Florence.

An *English* Merchant will draw upon, or remit to *Florence*, 227 *l.* 16 *s.* 8 *d.* we ask what he should receive at *Florence*.

Multiply the 227 $\frac{1}{2}$ *l.* Sterling
By 240 *d.* Sterling,

There will arise 54680 *d.* Sterling:
Then by 2 at 65 $\frac{1}{2}$ *d.* Sterl. for 1 Crown,

And we'll have 109360, to be divided by 130 Half Pence;

Divide the 109360 by 131, there will arise 804 $\frac{1}{3}$ Ecu's, to receive at *Florence*.

ENGLAND upon Genoa.

A Merchant in *London* draws upon *Genoa* 217 *l.* 10 *s.* 0 *d.* Sterling; what is he to receive at that Place?

Multiply the 217 *l.* Sterling
By 240 *d.* Sterling,

There will arise 52200 *d.* Sterling:
Then by 4

And you'll have 208800, to divide by 260 Fourths.

Divide the 208800 by 261, and you'll have 800 Piasters to receive at *Genoa*.

Multiply them by 5 Lires, Value of the Piafter, and there will arise 4000 Lires current Money.

ENGLAND upon Leghorn.

A Merchant of *London* negotiates at *Leghorn* for 275 *l.* Sterling, what must he receive at *Leghorn*?

Multiply the 275 *l.* Sterling
By 240 *d.* Sterling,

There will arise 66000 *d.* Ditto, to be divided by 66 *d.* the Price of Exchange,

And you'll have 1000 Piasters to receive at *Leghorn*.

Multiply by 6 Lires, Value of the Piafter,

You'll have 6000 Lires, of 20 Soldi.

ENGLAND upon Lisbon and Oporto.

A Merchant in *London* will remit to *Lisbon*, or *Oporto*, 503 *l.* 5 *s.* 3 *d.* Sterling, at Ufance of 2 Months, or at 25, 30, or 40 Days Sight, at the Rate of 6 $\frac{1}{2}$ Shillings for 1000 Rees, 400 of them making 1 Cruzade; we ask how much he is to receive at those Places.

Multiply the 503 *l.* 5 *s.* 3 *d.* Sterling
By 240 *d.* and add 63 *d.* for the 5 $\frac{1}{2}$ Shillings;

There will arise 12078 *d.* Sterling, to be divided by 78 *d.* Value of the 6 $\frac{1}{2}$ Shillings;

Divide the 12078 by 78 *d.* Value of the 6 $\frac{1}{2}$ Shillings of the Price of the Exchange, and you'll have 1548500 Rees; which Number being divided by 400 Rees, it will produce 3871 Cruzades, 100 Rees, to receive at *Lisbon*, &c.

LONDON upon Ireland or Dublin.

London remits to *Ireland* 475 *l.* the Exchange at 8 $\frac{1}{2}$

per Cent. in Favour of *London*; to know what must be receiv'd in *Ireland*, say,

If 100 *l.* of *London* 108 $\frac{1}{2}$ of *Ireland*, 475 of *London*,
Multiply by 108 $\frac{1}{2}$.

51300
 $\frac{1}{2}$ of 475 *l.* is 237 10

Divide by 100) 515 | 37 10
20

Must be receiv'd in *Ireland*,
515 *l.* 7 *s.* 6 *d.*

7 | 50
12
6 | 00

Ireland or Dublin upon London.

Dublin draws upon *London* 515 *l.* 7 *s.* 6 *d.* paying Exchange 8 $\frac{1}{2}$ per Cent. to *London*: To know what must be received in *London*, say,

If 108 $\frac{1}{2}$ of *Dublin*, 100 *l.* in *London*, 515 $\frac{1}{2}$ of *Dub.*
8 8

868
4123
Multiply by 100

Divide by 868) 412300 (475 *l.*

Remains 000

Must be received in *London* 475 *l.* Sterling.

The English Plantations, or the West-Indies, upon London.

Bills upon *London* for any of the *Carribbee* Islands, are usually charged with 50 per Cent. in favour of *London*; that is, if *St. Christophers*, *Montserrat*, *Antegoa*, &c. should draw upon *London* 100 *l.* the Merchants of *London* charge the Drawer with 150 *l.* for the said 100 *l.* and for *Jamaica*, *Virginia*, *Maryland*, *New-England*, *Pensylvania*, &c. the Difference is at most Times much greater. So that if any of the said Places should draw upon *London* 192 *l.* 10 *s.* Sterling Exchange, at 60 per Cent. in favour of *England*, to know how much the Drawer must be charged with in the *West-Indies*, say,

If 100 *l.* Lond. is 160 *l.* W. Ind. what shall 192 *l.* 10 *s.* Lond.
20 20

2000 Shillings
3850 Shillings
Multiply by 160

Divide by 2000) 616000 (308 *l.*

The Drawer must be charg'd for 308 *l.*

CHANGES of FRANCE, or of Paris, Lyons, &c.

We have said already that the *French* Monies are expressed by Livres, Sols, and Deniers *Tournois*; and because the Changes are ordinarily made by Ecu's of 60 Sols, or of 3 Livres *Tournois*, or of 20 Sols of Gold, the Livres must be reduced into Ecu's, or Crowns, by taking the third of those Livres; and if there be Sols, and Deniers, under three Livres, they must be reckoned as Parts of the said Ecu of 60 Sols *Tournois*: As for Example, 2 Livres *Tournois* make $\frac{2}{3}$ of the said Ecu, which are to be considered but as 40 Sols *Tournois*, &c.

Paris upon Amsterdam.

A Merchant, in *Paris*, wants to draw upon or remit to *Amsterdam* 1840 $\frac{2}{3}$ Ecu's at 90 Grots, we ask what he must receive at *Amsterdam*?

Multiply the 1840 $\frac{2}{3}$ Ecu's of 60 Sols
Tournois,

By the Price of Exchange at 90 *d.* Gros Bank Money,

You'll have 165600 Deniers Gros, from which take off the 0,

Take the $\frac{1}{3}$ to have 4141 $\frac{1}{3}$ Flor. of 20 Sols Bank of *Amsterdam*.

Note,

Note, That by taking off the last Figure of 165660 Deniers Gros, and taking the fourth of the preceding ones; it is dividing by 40 Deniers Gros, which makes 1 Florin of 20 Sols; and because there remain 2, which with 0 make 20 Deniers, we take half of it to have 10 Sols or $\frac{1}{2}$ Florin; and thus of all the rest.

Note, also, that at the said Price of Exchange of 90 Deniers for 1 Ecu, it is at the Rate of 90 Rixdollars of 50 Sols, for 100 Ecu's: For Proof of this say, If 100 Ecu's, are worth 90 Rixdollars, how much 1840 $\frac{2}{3}$ Ecu's? You'll have 1656 $\frac{2}{3}$ Rixdollars. These 1656 $\frac{2}{3}$ Rixdollars of 50 Sols, make 4141 $\frac{1}{2}$ Florins of 20 Sols as above.

Note, That at what Price soever the Exchange be in current Money for 1 Ecu of 60 Sols *Tournois*: 33 $\frac{1}{3}$ Ecus, or 100 Livres *Tournois*, return only as many Livres (or Parts of Livres) which the said Price of Exchange bears in the said Current Money (and not in Bank Money, because of the Price of the Agio.)

If the Bearer of a Bill of Exchange of the said Sum of 1840 $\frac{2}{3}$ Ecus, at the said Price of 90 Deniers Gros of Bank for 1 Ecu, was to agree with him who should pay it, to receive the Payment in ready Cash, when the Agio of the Bank would be, for Example, at 5 *per Cent*. in that Case the 4141 $\frac{1}{2}$ Florins should be reduced in Current Money, saying thus:

If 100 Florins of Bank are worth 105 Deniers current, how much 4141 $\frac{1}{2}$ Florins or the Bank?

We should have 4348 Florins 11 $\frac{1}{2}$ Sols current.

If the 60 Sols *Tournois* of *France* be reduc'd to the *Par* of 50 Sols current of *Holland*, we shall find that the 4348 Florins 11 $\frac{1}{2}$ Sols current, should give but 5218 Livres, 5 Sols, 9 $\frac{1}{2}$ Deniers, instead of 5522 Livres *Tournois*, (Value of the 1840 $\frac{2}{3}$ Ecu's) which being known, we may say,

If 120 Livres are worth 100 Florins current, how much 5218 Livres, 5 s. 9 $\frac{1}{2}$ d.

The Product will be 4348 Florins, 11 $\frac{1}{2}$ Sols current.

1 Ecu of 60 Sols *Tournois*, is at the *Par* of 100 D. or 50 Sols current.

Paris upon Antwerp, Lisle, and Middlebourg.

A Merchant in *Paris*, *Lyons*, &c. negotiates at *Antwerp*, *Lisle*, or *Middlebourg*, for 2569 $\frac{2}{3}$ Ecu's, at 90 $\frac{1}{2}$ Gros; what is he to receive at any of these Places?

Multiply the ——— 2569 $\frac{2}{3}$
By the Price of Exchange, at 90 $\frac{1}{2}$ Gros, Exchange Money, or of Permission, ———

The Product is ——— 23255 $\frac{1}{4}$ Gros, from which must be taken off the 4 $\frac{1}{2}$;

Take the $\frac{1}{4}$, to have 5813 Florins, 17 Sols 6 $\frac{2}{3}$ Pen.

Then the $\frac{1}{4}$, to have 968 l. 19 s. 6 $\frac{2}{3}$ d. Gros, to receive at *Antwerp*, &c.

Paris upon England.

A Merchant in *Paris*, *Lyons*, &c. negotiates with *London* for 1600 Ecu's, at 58 Pence Sterling; what is he to receive at that Place?

Multiply the ——— 1600 Ecu's, of 60 Sols *Tournois*,

By the Price of Exchange, at 58 $\frac{1}{2}$ d. Sterling for 1 Ecu,

The Product will be — 93600 d. Sterling, to be divided by 240 d. Sterl.

Or take $\frac{1}{4}$, which is — 31200

Then $\frac{1}{4}$ of the 31200, — 4800 Sols, or Shellings,

And the $\frac{1}{4}$ of 780, to have 39 l. Sterling to receive at *London*.

Paris, Lyons, &c. upon Hambourg.

A Merchant in *Paris* will draw upon, or remit to *Hambourg*, 1000 $\frac{1}{2}$ Ecu's, at 44 Sols Lubs; what is he to receive at *Hambourg*?

Multiply the ——— 1000 $\frac{1}{2}$ Ecu's, of 60 Sols *Tournois*,

By the Price of Exchange, at 44 Sols Lubs Bank Money for 1 Ecu;

The Product is ——— 44036 $\frac{1}{2}$ Sols Lubs; to be divided by 60 Sols Lubs:

If the 44036 $\frac{1}{2}$ Sols Lubs be divided by 16 Sols Lubs; Value of the Mark; the Answer is, that he is to receive at *Hambourg* 2752 Marks, 4 $\frac{1}{2}$ Sols, of the Bank.

If instead of dividing the 44036 $\frac{1}{2}$ Sols Lubs by 16 Sols, they be divided by 48 Sols Lubs; Value of the Rixdollar; or else the 2752 Marks, 4 $\frac{1}{2}$ Sols Lubs, by 3 Marks Lubs, the Value, likewise, of the said Rixdollar; we shall have 917 Rixdollars, 20 Sols, 8 d. Lubs, for the said 1000 $\frac{1}{2}$ Ecu's. The Change is the same upon *Lubeck*; and *France* draws often upon that Place payable at *Hambourg*:

Paris, &c. upon Frankfort on the Main.

A Merchant at *Paris*, &c. wants to draw upon, or remit to *Frankfort*, 2450 $\frac{1}{2}$ Ecu's, at 72 $\frac{1}{2}$ Crutzers; what is he to receive at that Place?

Multiply the ——— 2450 $\frac{1}{2}$ Ecu's, of 60 Sols *Tournois*;

By the Price of Exchange, at 72 $\frac{1}{2}$ Crutzers of Change, at 60 for the Florin; ———

The Product will be ——— 177649 Crutzers; 0 $\frac{2}{3}$ Deniers of Change.

Divide the 177649 Crutzers, 0 $\frac{2}{3}$ Deniers of Change, by 60 Crutzers, Value of the Florin; or by 74 Crutzers, Value of the Dale of Change:

The Answer is, 2960 Florins, 49 Crutzers, 0 $\frac{2}{3}$ Deniers; or 2400 Dales, 49 Crutzers, 0 $\frac{2}{3}$ d. Change, to be receiv'd at *Frankfort*.

Paris, Lyons, &c. upon Madrid, Seville, and Cadiz.

Most of the Remittances of *Paris*, *Lyons*, &c. to *Spain*, are made by means of the Correspondencies of *Amsterdam*, *Antwerp*, and *Hambourg*; because, in lieu of Money, which should be remitted thither by Bills of Exchange, the *French* send Merchandizes, as Linen Cloths, Ribbands, Silk, Stuffs; Castors, and other Effects; to have the Return in Silver Bars; Ingots of Gold, Pieces of Eight, or in Bills of Exchange upon the said Places, at so much the Gros, or Parts of the Gros. For 1 Ducat of 11 Reals, 1 Maravedi, or of 375 Maravedi's. But if the Occasion offer'd to draw directly upon those Places, either in giving Ecu's for a certain Number of Maravedi's, or Louis d'Or for a certain Number of Pistoles, which are worth 32 Reals, or 1088 Maravedi's, on the antient Footing; in these two Manners of Exchange, the following Method is to be observ'd.

For Example, a Merchant at *Paris*, *Lyons*, &c. will draw upon, or remit to *Madrid*, *Seville*, and *Cadiz*, 2350 $\frac{1}{2}$ Ecu's, at 280 Maravedi's; what is he to receive at any of these Places?

Operation, by Ecu's for Maravedi's.

Multiply the ——— 2350 $\frac{1}{2}$ Ecu's, of 60 Sols *Tournois*,

By the Price of the Change, at 280 Maravedi's for 1 Ecu;

The Product is ——— 658140 Maravedi's:

Divide the 658140 Maravedi's by 375; Value of the Ducat; and he'll have to receive at *Madrid*, *Seville*, or *Cadiz*, 1755 $\frac{1}{3}$ Ducats.

Note, That the Price of Exchange is always lower for *Madrid*, than for *Seville* or *Cadiz*; because the Ducat of *Madrid* is of new Plate, and that of *Seville* or *Cadiz* of old Plate; the Difference between them being of 25 *per Cent*.

Operation, by Louis d'Or.

But if, instead of changing Ecu's for Maravedi's, we want to change, for Example, 630 Louis d'Or, of 11 Livres a-piece, at the Rate of 105 Louis d'Or for 100 *Spanish* Pistoles; we'll say, by the Rule of Three,

If 105 Louis d'Or give but 100 Pistoles, how many 630 Louis d'Or?

The Product is 600 *Spanish* Pistoles;
Multiply them by 1088 Maravedi's, which are the Value of the *Spanish* Pistole;
And you'll have 652800 Maravedi's, 34 of which make 1 Real:

Divide the 652800 by 375 Maravedi's, the Product will be 1740 $\frac{2}{3}$ Ducats, for the Value of the said 600 *Spanish* Pistoles, which should be received for the 630 Louis d'Or; or else the Merchant should receive 1920 Reals.

Paris, Lyons, &c. upon Lisbon, and Oporto.

Commonly the Remittances from *France* to *Portugal*, or *Lisbon*, are made by means of the Correspondencies of *Amsterdam*, *Antwerp*, and *Hambourg*; but, however, let's see how they are made directly.

A Merchant at *Paris*, *Lyons*, &c. negotiates with *Lisbon*, or *Oporto*, for 4200 Ecu's, at 660 Rees; what should he receive at those Places?

Multiply the 4200 Ecu's, of 60 Sols *Tournois*,
By the Price of the Change, at 660 Rees for 1 Ecu;

The Product will be 2772000 Rees:

Divide the 2772000 Rees, by 400 Rees, Value of the *Cruzade*; the Answer will be, that our Merchant should receive at *Lisbon*, or *Oporto*, 6930 *Cruzades*.

The *Par* is taken at the Rate of 1 Ecu for 600 Rees.

Paris, Lyons, &c. upon Genoa.

Lyons changes upon *Genoa*, in giving from 200 to 240 Ecu's, of 20 Sols Gold, to have 100 Ecu's of Mark at *Genoa*; which 100 Ecu's of Mark make 122 Ecu's, 8 Sols, Silver, the said Crown of 7 Lires, 12 Soldi.

Suppose it was wanted to draw upon, or remit from *Lyons* to *Genoa*, 6300 Livres *Tournois*, at the Rate of 225 Ecu's, of 20 Sols of Gold Sol, for 100 Crowns of Mark.

We'll reduce 6300 Livres *Tournois* into Ecu's, We'll take $\frac{1}{3}$, which is 2100 Ecu's, of 20 Sols of Gold Sol; then say,

If 225 Ecu's of Gold Sol, give 100 Ecu's of Mark; how many 2100 Ecu's of Gold Sol?

The Product will be, 933 Ecu's, 6 Sols, 8 d. of Mark.

We'll say again, If 100 Ecu's of Mark, are worth 122 Ecu's, 8 Sols, of Silver; how many 933 $\frac{1}{2}$ Ecu's of Mark?

The Product will be 1142 Ecu's, 8 s. of Silver.

Multiply the Ecu's by 7 Lires 12 Soldi,

And you'll have 8682 Lires, 4 Soldi 9 $\frac{1}{2}$ d. to receive at *Genoa*.

Paris, Lyons, &c. upon Milan.

A Merchant at *Paris*, *Lyons*, &c. negotiates with *Milan* for 1472 $\frac{2}{3}$ Ecu's, of 60 Sols *Tournois*, at 95 Imperial Soldi; what is he to receive at *Milan*?

Multiply the 1472 $\frac{2}{3}$ Ecu's, of 60 Sols *Tournois*,
By the Price of the Change, at 95 Imperial Soldi for 1 Ecu;

The Product will be 13990 $\frac{1}{3}$ Soldi Ditto:

Take the $\frac{1}{3}$, to have 6995 Lires, 3 $\frac{1}{3}$ Soldi, Change Money.

Paris, Lyons, &c. upon Bologna.

A Merchant at *Paris*, *Lyons*, &c. negotiates with *Bologna* 1560 Ecu's, at 84 Soldi, or Bouligni's; what must he receive at that Place?

Multiply the 1560 Ecu's, of 60 Sols *Tournois*,
By the Price of the Change, at 84 Soldi for 1 Ecu;

The Product will be 13104 $\frac{1}{2}$ Soldi:

Take the $\frac{1}{2}$, to have 6552 Lires to receive at *Bologna*.

Paris upon Venice, Naples, Rome, Leghorn, and Lucca.

We have seen, in the preceding *Changes*, the Manner of changing by one single *French* Ecu; and we'll see, at present, the Manner we are to change by 100 Ecu's, of 60 Sols *Tournois*, for a Number of Ducats, Crowns, &c. so that the Merchant who shall know how to make, for Example, the *Change* of *Lyons* upon *Venice*, will know, likewise, how to make that upon *Naples*, *Rome*, &c. there being no other Difference, but with Respect to the Monies of foreign *Changes*. Therefore,

A Merchant, or Negotiator of *Paris*, or *Lyons*, &c. will draw upon, or remit to the Places abovemention'd, either at *Ufance*, or Double *Ufance*, or for longer or shorter Terms, viz. on *Venice* 1000 Ecu's, at 103 Ducats Banco of 24 Gros; what is he to receive at the said Place?

Say, by the Rule of Three, If 100 Ecu's give 103 Ducats Banco; how many will give 1000 Ecu's?

There will arise 1030 Ducats Banco, to receive at *Venice*.

Multiply them by 6 $\frac{1}{2}$ Lires Banco, Value of the Ducat,
And you'll have 6386 Lires Banco.

Paris, Lyons, &c. upon Naples.

A Merchant of *Paris* or *Lyons* will draw upon, or remit to *Naples*, 2434 $\frac{2}{3}$ Ecu's, of 60 Sols *Tournois*, at 120 Ducats of 10 Carlins; what must he receive at *Naples*?

Multiply the 2434 $\frac{2}{3}$ Ecu's,
By the Price of the Change, at 120 Ducats, of 10 Carlins;

The Product is $\left\{ \begin{array}{l} \text{Ducats} \quad 2921 \frac{1}{2} \text{ Ducats} \\ \text{Carlins} \quad 600 \end{array} \right.$

The whole will give 2921 Ducats, 6 Carlins, to receive at *Naples*.

Paris, Lyons, &c. upon Rome.

A Merchant of *Paris* or *Lyons* negotiates with *Rome* 2350 Ecu's, at 55 $\frac{1}{2}$ Ecu's Stamp, of 15 Julio's; what must he receive?

Multiply the 2350 Ecu's, of 60 Sols *Tournois*,
By the Price of the Change, at 55 $\frac{1}{2}$ Ecu's, of 15 Julio's for 100 Ecu's;

The Product will be 1304 $\frac{1}{2}$

And you'll have 1304 $\frac{1}{2}$ Ecu's of Stamp to receive at *Rome*.

Paris upon Florence.

A Merchant of *Paris*, *Lyons*, &c. will draw upon, or remit to *Florence*, 1254 $\frac{1}{3}$ Ecu's, at 72 $\frac{1}{2}$ Ecu's of 7 $\frac{1}{2}$ Lires; what is he to receive?

Multiply the 1254 $\frac{1}{3}$ Ecu's, of 60 Sols *Tournois*,
By the Price of the Change, at 72 $\frac{1}{2}$ Crowns, of 7 $\frac{1}{2}$ Lires Exchange Money;

The Product is $\left\{ \begin{array}{l} \text{Crowns} \quad 909 \frac{1}{2} \text{ Crowns} \\ \text{Soldi} \quad 783 \frac{1}{2} \text{ Soldi, adding } 3 \frac{1}{2} \text{ d. for the } \frac{1}{2} \\ \text{Deniers} \quad 1000 \end{array} \right.$

The Answer will be, that our Merchant should receive at *Florence*, 909 Crowns, 7 Soldi, 10 Deniers.

Paris, Lyons, &c. upon Leghorn.

The *Paris* Merchant negotiates with *Leghorn* 1221 Ecu's, at 81 $\frac{1}{2}$ Ecu's of 7 $\frac{1}{2}$ Lires; what is he to receive at that Place?

Multiply the 1221 Crowns, of 60 Sols *Tournois*,
By the Price of the Change, at 91 Piafters of 6 Lires, for 100 Ecu's;
The Product will be 1111 $\frac{1}{2}$ Piafters: That

That is to say, $\frac{1111}{100}$ Piafters:
 Multiply them by $\frac{6}{100}$ Lires, Value of
 the Piafter,
 And the Merchant will have 6666 Lires, 13 Soldi,
 $2\frac{2}{3}$ d. current at Leghorn.

Paris, Lyons, &c. upon Lucca.

If the *Paris* Merchant was to draw upon, or remit
 to *Lucca*, 1200 Ecu's, at $81\frac{1}{2}$ Ecu's of $7\frac{1}{2}$ Lires;
 what should he receive?

Multiply the $\frac{1200}{100}$ Ecu's, of 60
 Sols *Tournois*,
 By the Price of the Change, at $81\frac{1}{2}$ Crowns, of
 $7\frac{1}{2}$ Lires;
 And you'll have $\frac{978}{100}$ Crowns, of
 $7\frac{1}{2}$ Lires, to receive at *Lucca*.

Of the EXCHANGES of HOLLAND, and, previously to
 it, of the Banks of Amsterdam and Rotterdam.

The Bank of Amsterdam was establish'd by the Au-
 thority of the States, in the Month of January 1609;
 and for the speedier Improvement of it, it was deter-
 min'd, that all Payments of Bills of Exchange, or
 Sums for Goods, not being under 600 Florins, and no
 Sum under that can be enter'd in the Bank-Books by
 any Person, unless it be for the *East* and *West-India*
 Companies; but when such Privilege is allow'd to pri-
 vate Persons, they must pay 6 Stivers for every such
 Entry. So that in this Manner the Bank of Amsterdam
 is become the universal Depository of the Riches of
 all its Inhabitants, and of a great many Foreigners,
 its Credit being so good, that no Body pretends to
 call it in Question: And, indeed, it is plain, that it
 can't well fail, so long as the Government of the
 Country subsists; for the City of Amsterdam is its Se-
 curity: Nor would there be any Reason to question
 the Security of the Bank of Amsterdam, tho' the City
 were no ways engag'd for it; it being certain, that
 there is a real Treasure, much more than is sufficient
 to answer all Demands, as will plainly appear, by the
 following Instance.

In the Heat of the War, in the Year 1672, be-
 tween France and the United Provinces, the King of
 France having taken *Utrecht*, and a great many other
 Towns; People being jealous of the Event of that
 War, and fearing that he might likewise render him-
 self Master of Amsterdam; vast Numbers of those who
 had Money in the Bank, demanded it, and their De-
 mands were punctually answer'd; and some who were
 in remoter Places not having Patience till they could
 conveniently be paid at the Bank, dispos'd of the
 Sums they had in it at a considerable Loss, giving 105
 or 106 Florins in Bank for 100 Florins current: So
 that considering the intrinsic Value of the Monies,
 they lost ten or twelve *per Cent.* the Bank Money
 being generally five or six *per Cent.* higher than cur-
 rent Money. But the Affairs of the War soon taking
 another Turn, those of the Bank were likewise restor'd
 to their former Condition.

The real Treasure of the Bank of Amsterdam, which
 is believ'd to be the greatest in the World, consists in
 real Species, and Bars of Silver and Gold; the Species
 are receiv'd at a certain Rate, and the Bars of Gold
 and Silver, and other Bullion, by the Ounce, accord-
 ing to their Alloy and Fineness, which is tried by a
 publick Officer, who is appointed for that Service.
 This Treasure is kept in a vast Vault under the *Toren-
 House*, and secur'd by all the Means that human Pru-
 dence can invent, from any Danger of Robbers,
 Thieves, or other Accidents.

The Books of the Bank are kept in the ordinary
 Denomination of the Monies of the Country, *viz.*
 Florins, Stivers, and Deniers. All Persons who desire
 an Account in the Bank, must pay 10 Florins for
 having their Account opened; and a Stiver for every
 Transfer they make afterwards in the Book; and any
 Person who pleases may carry Money or Bullion to the
 Bank, and may demand it again at the same Value,
 whenever he pleases, paying only $\frac{1}{100}$ *per Cent.* for
 keeping it. If their Money be in Ducatoons, they

will be received at 3 Florins a-piece; if in Bullion, it
 will be received at its just Value; and if in current
 Money, the Party may either agree with one of the
 Cash-keepers, or Bankers, for the Price of the *Agio*;
 or negotiate it with some Merchants upon the *Ex-
 change*, who may probably give something more for it;
 and assign the Value on his Account on the Bank.

The *Agio* is the Difference between the Value of
 the Bank and current Money, which is commonly be-
 tween 5 and 6 *per Cent.* then the Bank Money is higher,
 or more valuable than the current Money.

Any Person that has an Account in Bank, and would
 transfer the whole, or any Part thereof, to another
 Party; he must either carry a Note thither himself, or
 give Power to another to do it, in the Presence of the
 Book-keepers of the Bank, or some of them, or else
 it will not be receiv'd. The Note or Order must be
 to the Effect, and in the Form following.

Folio 475.

Messieurs, the Commissioners of the Bank, shall
 please to pay to *B. P.* the Sum of two thousand four
 hundred eighty-seven Florins, 10 Sols, at Amsterdam,
 the Day of, &c.

Florins 2487, 10 Sols.

P. G.

The *Folio 475*, above the Order, denotes the Leaf
 of the Bank Book upon which *B. P.*'s Account stands,
 which must never be neglected to be inserted.

But if a Merchant should credit another in the Bank
 upon the Account of a third Person, he must not fail
 to express it in the Note, after the following Manner.

Folio 345.

Messieurs, the Commissioners of the Bank, shall
 please to pay to *B. P.* upon the Account of *P. G.* the
 Sum of two thousand four hundred eighty-seven Flo-
 rins, 10 Sols, at Amsterdam, the Day of

Florins 2487, 10 Sols.

P. G.

Such Notes may be carried to the Bank at any Time
 between the Hours of 7 and 11 in the Forenoon; or
 if there be a Necessity of making a Transfer, in the
 Afternoon, the Party making it must pay 6 Stivers.

If there be any odd Deniers to be written in the
 Bank, if they be 8, they are written down; if above
 8, they write down 1 Stiver; and if under 8, no No-
 tice is taken of them.

A Party credited in the Bank for any Sum, can't
 write it off again, or transfer it to any other the same
 Day, except it be the second Day that the Book is
 open after ballancing the Accounts; he being oblig'd,
 in the Penalty of 3 Florins, for every 100 Florins
 transferred, to wait till the next Day, that he has in-
 formed himself whether the Sum he pretends to have
 been credited for be actually written off, and transferr'd
 to his Account.

They must always go, or send before Eight in the
 Morning, to know if the Sums they expect to be cre-
 dited for in the Bank be actually writ off to them;
 whoever goes after 8, and before 9, must pay 2 Sti-
 vers to be informed; and those that go between 9 and
 3 in the Afternoon, must pay 6 Stivers. Or a Mer-
 chant may agree with the Book-keepers for 10 Duka-
 toons a Year, and he may have an Account brought
 to him every Morning of the Sums that have been
 transferred to him the Day before.

If a Party should write off more to another Person's
 Account than he has in Bank, he will forfeit 3 Flo-
 rins for every 100 Florins he shall so write off.

The Commissioners ballance the Accounts of the
 Bank twice every Year, once towards the End of *Ja-
 nuary*, and once towards the End of *July*; and such
 as have Accounts open in it, are oblig'd to go thither,
 or send some other Person with a Power from them to
 report what they have remaining due to them in the
 Bank; and if such Reports agree with the Bank Books,
 the Book-keepers tell them the *Folio* on which the
 Ballance of their Accounts are transferred to in the
 New Books: But if there be any Difference, the Party
 must

must carry an Account of the particular Sums they have been credited for, that the Bank may the readier discover the Error. No Person must neglect to go and have their Ballance adjusted, at the aforesaid Seasons of *January* and *July*, or within six Weeks afterwards, under the Penalty of 25 Florins.

When a Person receives a Bill of Exchange at *Amsterdam*, he must leave it with the Acceptor, if he desires the Party to give him Time to consult his Advices, and book the Bill: However, it must be called for before the Post goes off, that the Protest may be sent to the Drawer, in Case it be not accepted: But Bills of Exchange payable in current Money are seldom left in the Hands of the Acceptors.

All Bills of Exchange upon *Amsterdam* are payable in Bank, except it be otherwise named to the contrary in exprefs Terms in the Bill; and must all be paid within the six Days of Grace, at the latest, unless they be those that are payable in Bank, and shall become due whilst the Bank is shut up: In such Case, they must be paid by writing off the Value in the Bank within three Days after it is open; and if they be not satisfied in that Time, they must be protested.

When a Bill becomes due, the Bearer thereof generally carries it to the Person that is to pay it, having first written the following Order upon the Back of it.

Write the Contents of the other Side upon my Account in Bank at Amsterdam, the of

D. C.

And the Bill being left with the Acceptor, he accordingly writes off the Value the next Day in the Bank.

If the Bearer of a Bill does not care to deliver it to the Acceptor till the Value is wrote off in Bank, he must shew him the Bill, and let him know that he will find it in the Bank; but then he must pay 6 Stivers to the Book-keepers, and desire them not to deliver it to the Acceptor till the Value be written off in the Books: And when he shall return and find it wrote off, he must order them to give it up to the Party that wrote off the Value, who ought to go and call for it; but if the Value be not wrote off in Time, the Bearer must demand the Bill again, and cause it to be protested for Non-payment.

If the Bearer of a Bill has no Account in the Bank, and is not desirous of any, he may receive that Value of the Bill in current Money; for it is only agreeing with the Acceptor for the Price of the *Agio*; and when he has received the Money, must write a Receipt upon the Back of the Bill, mentioning he has receiv'd the Value in current Money, and *Agio*, at so much *per Cent*.

If the Bearer of the Bill can't agree with the Acceptor for the *Agio*, he may negotiate it with a Banker or Cash-keeper, or any Body else: and in such Case, the Bill must be endorsed thus:

Write for me the Contents of the other Side to P. D. in Bank, Value of him at Amsterdam, the Day of

M. R.

If the Endorsement was simply for Value received, it would not be valid; no such Bill being reputed paid, without a special Endorsement, except it be written in Bank. The Endorsements upon the Bills may be made in *French*, *English*, or any other Language understood by the Acceptor; but Orders in Bank must be written in the Language of the Country.

If any Person has a Mind to negotiate Bank Money for current Money, he need only go to *Dam*, a Place before the Bank, or *Town-House*, between 10 and 11 in the Forenoon, where the Cash-keepers or Bankers do usually meet, who will furnish those that want with either Bank or current Money, at an agreed Price of *Agio*; and sometimes such Negotiations are done upon the Exchange by Brokers, who have commonly 1 *per* Thousand Brokerage.

The Salaries of the Officers of the Bank are paid by the City; and all that arises by Fines, Transfers, and other Monies coming from Things of that Nature, are applied to none other but charitable Uses.

When a Party's Account in Bank is full, and a new one must be begun, the Party having Notice thereof,

must go to the Bank, to compare his Account with theirs, in the same Manner as when the Bank makes a general Balance.

When any Person takes his Money out of the Bank, if the *Agio* is under 5 *per Cent*, the Treasurers pay the Party the Difference, the Bank receiving it at that Rate.

When any Difference happens between Merchants, concerning any Sum in the Bank, it is determined by two or three Commissioners chosen among the Magistrates, who decide all such Matters summarily.

At the Death of any Person who has Money in the Bank, their Heirs and Successors must prove their Titles by authentick Deeds, before the Book-keepers must transfer the Sums belonging to the Deceased to the Heirs or Successors Account.

If a Party takes up Money by *Exchange*, the Party that is furnished with the Bill ought not to pay for the same in current Money, without taking a Receipt of the Person that furnishes him, expressing the Sum that was delivered in current Money, the Price of the *Agio*, and the Sum in Bank Money contained in the Bill.

If a Person should be sick, or otherwise indisposed, that he cannot go himself in Person to write in the Bank, but is obliged to depute another to do it for him, the Party thus deputed ought to have proper Vouchers to prove his Authority; for without a Letter of Attorney, or some such Warrant, a Bill cannot be received, nor can the other Party write; and these Vouchers must be received every six Months or oftener, if the Commissioners of the Bank shall so require.

Most Bills of Exchange are negotiated by the Assistance of Brokers; and in Case any Difference should happen between the Party's negotiating, the Report of a legal sworn Broker is taken, and the Differences adjusted accordingly. Brokerage is paid at *Amsterdam* by both Parties concerned, each paying one half; which according to the Regulations in *Amsterdam*, for negotiating of Bills of Exchange, they are allowed 3 Stivers for every 100 Florins; and in exchanging Bank and current Monies 1 for 1000.

The BANK OF ROTTERDAM is not so considerable as that of *Amsterdam* abovementioned; it was established *April* 18, 1635. According to the established Regulations, it is allowable for the Bank to receive in Payment $\frac{1}{8}$ part of the Sum in base Money, and the other $\frac{7}{8}$ in fine Money.

All foreign Bills upon *Rotterdam*, in Case of Non-payment, must be protested the sixth Day after they become due, including *Sundays* and Holidays, except they happen to fall due during the Time the Bank is shut up; in which Case they need not be protested till the second or third Day after the Bank is open again: Such Delay does not any ways render the Bearer answerable for Damages. The Exchanges of this Place, and Monies are the same as at *Amsterdam*; but they commonly give something more for Monies and foreign Bills, than they do at *Amsterdam*.

Having already given an exact, and very particular Account in my Treatise of *Coining*, of the real Money of *Holland*; and in the Beginning of this of the imaginary, or Money of Account of those Places, I'll proceed to

The current Prices of the Exchanges of Holland, or Amsterdam, with the Principal Places in Europe.

AMSTERDAM gives to *Antwerp*, *Brabant*, *Flanders*, and *Zealand* 100*l.* for 95 to 105*l.* of their Monies; and sometimes they exchange Florins for Florins.

With *Liege* and *Maastricht*, 100 Rixdollars of *Amsterdam*, for the like proportionable Number of Florins of 20 Stivers *Liege*; they commonly exchange about a *Par*.

To *Dantzick*, *Riga*, *Coningsberg*, 1*l.* for 220, to 280 *Polish* Grosses; or 100 Rixdollars of *Amsterdam* for 125, to 130 Rixdollars of 30 Grosses.

Bremen, 100 Rixdollars for 115, to 130 Rixdollars of 72 Grosses.

Emden,

Emden, 100 Rixdollars for 120, to 140 Rixdollars of 54 Stivers.

Stetin, 100 Rixdollars for 100, to 105 Rixdollars of 48 Stivers Lubs.

Berlin, 100 Rixdollars for 118, to 130 Rixdollars of 30 Groffes.

Cologne, 100 Rixdollars for 120, to 130 Rixdollars of 78 Albus's.

Stockholm, and all *Sweden*, 1 Rixdollar for 25 or 26 Copper Marks, and sometimes at so much *per Cent.* in favour of *Amsterdam*.

Copenhagen, and all *Denmark* and *Norway*, 100 Rixdollars for 125, to 130 Rixdollars of 9 Groffes.

Muscovy, or *Russia*, 1 Rixdollar for a Rouble, or something more or less than a Rouble.

Note, That *Amsterdam* gives a certain Sum to all the abovementioned Places in Exchange, and to the following ones an uncertain.

Amsterdam gives to *London* 3 Skillings to 38 Skillings, for 1*l.* Sterling; and by their Correspondents in *London* they have an Exchange with all the considerable Towns in *Great Britain* and *Ireland*; and in case of Necessity, Bills might be found in *Amsterdam* upon most of the trading Towns directly.

To *Paris*, and all *France*, 50, to 80 Groots for 1 *Ecu* of 3 Livres or 60 Sols *Tournois*.

Spain, 80, to 130 Groots for 1 Ducat of 375 Maravadies.

Portugal, 40, to 100 Groots, for 1 *Cruzade* of 400 Rees.

Nuremberg, from 70 to 80 Groots, for the Florin of 65 Cruitzers current, or 100 Rixdollars of 50 Stivers for 120, to 135 Rixdollars of 95 Cruitzers of the Empire.

Geneva, 80, to 100 Groots for the Crown of that Place of 60 Sols *Geneva*.

Venice, 85, to 100 Groots, for 1 Ducat of 24 Gros Banco.

Genoa, and *Novi*, 90, to 100 Groots for the Pezzo of 5 Lires.

Leghorn, 90, to 100 Groots, for the Pezzo of 6 Lires.

Frankfort, 80, to 90 Groots, for 1 Florin of 65 Cruitzers of Exchange, or 100 Rixdollars of 50 Stivers for 115, to 130 Rixdollars of 90 Cruitzers of the Empire.

Leipsick, *Naumbourg*, and *Hanover*, 100 Rixdollars of 50 Stivers for 115, to 135 Rixdollars of 24 Gros. Or they give from 35 to 45 Stivers for a Rixdollar of 24 Gros of *Leipsick*.

Hambourg, 30, to 34 Stivers for 1 Dollar of 2 Marks, or 100 Rixdollars of 50 Stivers for 98, to 105 Rixdollars of 48 Stivers Lubs.

Breslaw, 30, to 40 Stivers for 1 Dollar of 30 Imperial Groffes; or 100 Rixdollars of 50 Stivers, for 130 to 150 Rixdollars of 30 Groffes.

Note, That in *Flanders* they have a Distinction between their current Money, and what they call Permission Money; this latter is better than the former; and the Permission Money of *Brabant* and *Flanders* being reckoned equal to the Money of Exchange of *Amsterdam*, they often exchange at the *Par*, and seldom run very far above, or under an Equality, excepting upon extraordinary Occasions.

Note also, That *Holland*, or *Amsterdam*, changes upon all the principal Places of *Europe*, viz. *England*, *France*, *Spain*, *Portugal*, *Italy*, &c.

Amsterdam upon London.

Holland negotiates with *London* for 332½ Florins Money of the Bank, at the Rate of 32½ Sols Gros, or Shillings, for 1 Pound Sterling, at Usance of 40 Days, or for a longer or shorter Term, we ask of how many Pounds, Shillings, and Pence Sterling, the Bill of Exchange must be?

Reduce into Sols Gros the — 332½ Florins Bank Money, by multiplying by 40 *d.* adding 20 *d.* for the ½;

The Product will be — 132860 *d.* Gros:
Reduce, likewise, into *d.* Gros, the 32½ Sols Gros, of the Price of the Change, in multiplying by 12 *d.* Gros,

The Product will be — 390 *d.* Gros;
Bank Money.

Divide the 132860 *d.* Gros, by the 390 *d.* of the Price of the Change for 1*l.* Sterling, multiplying what will remain of the first Division by 20 Shillings Sterling, which is the Value of the Pound Sterling; and of the second, by 12 Pence Sterling, reducing the Surplus into Fractions, if there be any; and the Answer will be, that there must be receiv'd in *London*, or other Places of *England*, 340*l.* 13*s.* 4*d.* Sterling.

Note, That at the aforesaid Price of Exchange of 32½ Sols Gros, which are 390 *d.* Gros, the said Change comes to 390 Rixdollars, of 4 Sols Money of the Bank for 100 Pounds Sterling; for Proof thereof, take off the 60 from the 132860 *d.* there will remain 132800 Rixdollars of 50 Sols Money of the Bank; which being known, say, If 390 Rixdollars are worth 100*l.* Sterling; how much 132800 Rixdollars? There will arise, 340½ Sterling.

Amsterdam upon France.
A Merchant of *Amsterdam*, or of any other Place of *Holland*, will draw upon, or remit to *Paris*, *Lyons*, or any other Part of *France*, 414½ Florins, 10 Sols or Skillings, at 90 Sols for 1 *Ecu*; what is he to receive at the said Places?

Reduce into Sols Gros, the 414½ Florins Bank Money,
In multiplying the Florin by — 40 *d.* adding 20 *d.* or 10 Sols;
The Product will be — 165660 *d.* Gros.

Divide the 165660 Deniers Gros, by the 90 Deniers of the Price of Exchange for 1 *Ecu*; and multiply what remains of the first Division by 60 Sols *Tournois*, which is the Value of the said *Ecu*; and of the second Division by 12 Deniers *Tournois*, dividing the Products by 90 Deniers; the Answer will be, 1840½ *Ecu*'s, of 60 Sols *Tournois*.

Multiply them by 3 Livres *Tournois*, and our Merchant will receive at *Paris*, &c. 5522 Livres *Tournois*.

Amsterdam upon Spain.
Holland negotiates with *Madrid*, *Seville*, *Cadiz*, &c. for 4634 Florins, 6 Sols, at 121 Groots, or Deniers, for 1 Ducat; what must he receive at those Places?

Reduce into Groots the 4534 Florins, 6 Sols, Bank Money,
In multiplying the Florin by 40 Groots, adding 12 Groots for the 6 Sols;
The Product will be — 185372 Groots.

Divide the 185372 Groots by the 121 Groots, of the Price of Exchange, for 1 Ducat of 375 Maravedi's, and multiply what remains of the first Division by 20 Sols, and of the second by 12 Groots; and you'll have for Answer, that there must be received at *Madrid*, *Cadiz*, &c. 1532 Ducats, of 375 Maravedi's. Multiply the Ducats by 11 Reals, 1 Maravedi,

The Product will be 16897 Reals, 2 Maravedi's:
Divide the Reals by 8, to have 2112 Piasters, 1 Real, 2 Maravedi's.

Amsterdam upon Portugal.
Holland negotiates with *Lisbon*, *Oporto*, &c. for 2282 Florins, 3 Sols, 8 Pen. at 51½ Groots, or 1 *Cruzade*; what must be received in *Portugal*?

Reduce into Groots the 2282 Flor. 3½ Sols, Bank Money,
In multiplying the Flor. by 40 Groots, adding 7 Groots for the 3½ Sols;
The Product will be — 91287 Groots.

9 0 Then

Then by 4, because of the $\frac{3}{4}$, at $5\frac{1}{4}d.$ per Cruzade; and you'll have 365148 Quarters, to divide by 207 Quarters.

Divide the 365184 by 207, and multiply what remains of the first Division by 20 Sols, and of the second by 12 Groots; and you'll have, for Answer, 1764 Cruzades, of 400 Rees, at *Lisbon*.

Multiply them by 400 Rees, the Value of the Cruzade; the Product will be 7050600 Rees.

Amsterdam upon Venice.

Amsterdam negotiates with *Venice* 2779 Flor. 17 S. 8 Pen. at 90 Groots for 1 Ducat; what are they to receive at *Venice*?

Reduce into Groots the 2779 Flor. 17 S. 8 Pen. Bank Money,
In multiplying the Florins by 40 Groots, adding 35 Groots for the $17\frac{1}{2}$ Sols, ———

The Product will be ——— 111195 Groots.

Divide the 111195 Groots by 90 Groots, the Price of the Change for 1 Ducat of 20 Gros Banco, multiplying what remains by 20 and 12; you'll have 1235 $\frac{1}{2}$ Ducats Banco, to receive at *Venice*.

Amsterdam upon Genoa.

Holland negotiates with *Genoa* for 4264 Flor. 10 Sols, at 90 Groots for 1 Piafter; what are they to receive at *Genoa*?

Reduce into Groots the 4264 $\frac{1}{2}$ Florins Bank Money,
In multiplying the Flor. by 40 Groots, adding 20 *d.* for the $\frac{1}{2}$ Flor. ———

The Product is ——— 170580 *d.* Gros.

Divide the 17058 Deniers Gros, or Groots, by the 90 Groots of the Price of the Change for 1 Piafter of 5 Lires or 100 Soldi, operating for the remaining as in the preceding Articles, and the Answer will be, that they are to receive at *Genoa*, 1895 $\frac{1}{2}$ Piafters, of 5 Lires.

Multiply them by 5 Lires, and they'll have 9476 Lires, 13 $\frac{1}{2}$ Soldi current.

Amsterdam upon Leghorn.

Holland negotiates with *Leghorn* for 2780 Flor. 16 S. 12 Pen. at 91 $\frac{1}{2}$ Groots for 1 Piafter; what must they receive at *Leghorn*?

Reduce into Groots the 2780 Flor. 16 $\frac{3}{4}$ Sols, Bank Money,
In multiplying the Flor. by 40 Groots, adding 33 $\frac{1}{2}d.$ for the $16\frac{3}{4}$ S. ———

The Product will be ——— 111233 $\frac{1}{2}$ Deniers de Gros.

Then because of the $\frac{1}{2}D.$ by 2 at 91 $\frac{1}{2}$ Deniers, ———

And you'll have ——— 222467

Divide the 222467 by 183, multiplying the Remainder by 20 and 12, for the Reasons heretofore alleged; and you'll have for Answer, that there should be received at *Leghorn*, 1215 $\frac{1}{2}$ Piafters.

Multiply them by 6 Lires, Value of the Piafter, ———

You'll have ——— 7294 Lires, current Money.

Amsterdam upon Frankfort.

Amsterdam negotiates with *Frankfort* for 3249 Flor. S. 8 Pen. at 48 $\frac{1}{2}$ Denier Gros for 1 Florin; what are they to receive at *Frankfort*?

Reduce into Deniers Gros the 3249 Flor. 0 S. 8 Pen. of the Bank,
In multiplying the Florins by 40 D. adding 1 D. for the 8 Pen. ———

The Product will be ——— 129961 D. Gros:

Because of the $\frac{1}{2}$ Denier, multiply by 2 at 84 $\frac{1}{2}$ Denier, ———

You'll have ——— 259922, to divide by 169 Half Deniers.

Divide the 259922 by 169, multiplying the Surplus by 20 and 12, and you'll have for Answer, that they must receive at *Frankfort* 1538 Flor. of 60 Cruzers of the Change.

Amsterdam upon Nuremberg.

Holland negotiates with *Nuremberg* for 2205 Flor. at 70 D. for 1 Florin; what must they receive at *Nuremberg*?

Reduce into Groots the 2205 Flor. Bank Money,
In multiplying the Flor. by 40 Groots; ———

The Product will be ——— 88200 Groots.

Divide the 88200 by 70 Groots of the Price of the Exchange for 1 Florin, of 60 Cruzers current, multiplying the Remainder by 20 and 12; and the Answer will be, that they should receive at *Nuremberg*, 1260 Florins, of 60 Cruzers current.

Amsterdam upon Hambourg.

Holland negotiates with *Hambourg* for 3797 Flor. 8 Sols, at 33 $\frac{1}{2}$ Sols per Dealler of 32 Sols Lubs; what should be received at *Hambourg*?

Reduce into Groots the 3497 Flor. 8 Sols, Bank Money,
In multiplying by ——— 40 Groots, adding 16 Groots for the 8 Sols; ———

The Product will be ——— 139896 Groots.

If the 33 $\frac{1}{2}$ Groots Bank Money be reduced into Half Groots, you'll have 67 Groots, with which Number you'll divide the 139896 Groots, multiplying what might remain of the first Division by 32 Sols Lubs, which is the Value of the Dealler, and of the second by 12 Groots, which is the Value of the Sols Lubs; and you'll have for Answer, that there should be receiv'd,

At *Hambourg*, { —2088 Deallers of 32 Sols Lubs
or 1392 Rixdollars of 48 Sols of the Bank.
or 4176 Marks of 16 Sols of the Bank.

Amsterdam upon Breslaw.

Holland negotiates with *Breslaw* for 2526 Flor. 17 $\frac{1}{2}$ Sols, at 35 Sols per Rixdollar of 30 Gros; what are they to receive at *Breslaw*?

Reduce into Sols the 2526 Flor. 14 $\frac{1}{2}$ Sols of the Bank,
In multiplying the Flor. by 20 Sols, adding 17 $\frac{1}{2}$ Sols; ———

The Product will be ——— 50537 $\frac{1}{2}$ Sols Bank Money.

Divide the 50537 $\frac{1}{2}$ Sols of the Bank by the 35 Sols of the said Money, for 1 Rixdollar of 30 Gros, and you'll have for Answer, that they should receive at *Breslaw* 1443 $\frac{1}{2}$ Rixdollars of 30 Gros, or 90 Cruzers.

Amsterdam upon Leipfick.

Amsterdam negotiates with *Leipfick* for 4591 Flor. 7 Sols, at 39 Sols per Rixdollar of 24 Gros; what are they to receive?

Reduce into Sols the 4591 Flor. 7 Sols, current Money,
In multiplying by ——— 20 Sols, adding to it the 7 Sols; ———

The Product will be ——— 91827 Sols current.

Divide the 91827 Sols by the 38 Sols current of the Price of the Change for 1 Rixdollar or Ecu, of 24 Gros, multiplying what should remain of the first Division by 24 Gros, and of the second by 12 Penins, which is the Value of the Gros; and you'll have for Answer, that they should receive at *Leipfick*, 2410 $\frac{1}{2}$ Rixdollars of 24 Gros.

Amsterdam upon Dantzick and Coningsberg.

A Merchant of *Amsterdam* will remit to *Dantzick*, or *Coningsberg*, 3300 Florins of 20 Sols Bank or current Money, at the Rate of 270 *Polish* Gros, or of *Brandenbourg*, or of *Prussia*, for 1 Liv. Gros, or at the Rate of 100 Rixdollars of 50 Sols of the aforesaid Money, for 125 Rixdollars of 90 Gros (or 3 Florins) of *Poland*, or of *Brandenbourg*, or of *Prussia*; we ask how many Florins or Rixdollars must be told or received at those Places?

Operation by Livres Gros.

Reduce into *l.* Gros the 3300 Flor. of 20 S. Bank or current Money, ———

In taking the $\frac{1}{2}$, which is 550 Liv. Grös;
 Multiply them by $\frac{1}{2}$ 270 Polisch Grös, or of
Prussia,
 The Product will be 148500 Grös.
 Divide the 148500 by 30, you'll have 4950 Flo-
 rins; or by 90, and you'll have 1650 Rixdollars, of
Poland or Prussia.

Operation by Rixdollars.

Reduce into Rixdollars the 3300 Flor. of 20 Sols
 Bank or current Money, in taking twice the $\frac{1}{2}$, which
 is 660; the Product will be 1320 Rixdollars, of 50
 Dutch Sols.

Amsterdam upon Antwerp, Brussels, &c.

Amsterdam draws upon *Antwerp* 614 Livres Grös,
 Money of Exchange, or of Permission, at $\frac{3}{4}$ per
 Cent. Advance, for the Person in whose Favour the
 Bill of Exchange is drawn, and Loss for the Drawer;
 we want to know what Sum the last is to be received
 in Bank.

Operation.

At $\frac{3}{4}$ per Cent. Advance for the Drawer. Say,
 L. Grös. L. Grös. L. Grös.
 If 100 $\frac{3}{4}$ give but 100 how many will give 614

4 4 400

403 Divis. 400 Multipl. 245600

Divide the 245600 by 403, multiplying what will
 remain of the first Division by 20 Sols, and of the
 second by 12 Deniers Grös, reducing the Surplus into
 Fractions; and you'll have 609 Liv. 8 S. 7 D. and
 a little more, Grös, than the Drawer must receive in
 Bank.

Reduce into Florins, Sols, and Pennins, the 609
 L. Grös, 8 S. 7 D. and a little more, in multiplying
 by 6 Flor. Value of the Livre Grös;

The Product will be, 3656 Flor. 11 S. 8 Pen. and
 a little more.

Amsterdam upon Ghent.

We suppose that there has been remitted to *Frank-
 fort* a Bill of Exchange upon *Ghent* of 360 Livres
 Grös, which can be negotiated on the Change at *Am-
 sterdam* at $\frac{1}{2}$ per Cent. Loss, and Advance for the Per-
 son it is negotiated to; we ask, what Sum must be re-
 ceived in Bank?

We ought to know, first, that 108 $\frac{1}{2}$ Livres Grös,
 current Money, make 100 Livres Grös, Exchange
 Money, or of Permission; which being known, the
 360 Livres Grös, current Money, must be reduced
 into Money of Exchange, in the following Manner:

At $\frac{1}{2}$ per Cent. Advance, for the Person that gives
 the Money; say,

Current. Of Exchange. Current.
 If 108 $\frac{1}{2}$ L. give 100 L. how many 360

3 3 300

325 Divis. 300 Multipl. 108000

Divide the 108000 by 325, and multiply what re-
 mains of the first Division by 20 Sols, and of the se-
 cond by 12 Deniers Grös, reducing the Surplus into
 Fractions; it will produce 332 Liv. 6 Sols, 1 Denier
 Grös, and a little more.

Say,

Of Exchange. Of Ex. Of Exchange.
 If 100 $\frac{1}{2}$ L. give 100 L. how many 33 L. 6 S. 1 D.

2 2 200

201 Divis. 200 Multipl. 66460 16 8 and

Divide the 66460 16 8 by 201, and multiply
 what remains of the first Division by 20 Sols, and of
 the second by 12 Deniers Grös, reducing the Surplus
 into Fractions; and you'll have to receive in Bank,
 the Sum of 330 Liv. 13 Sols, and a little more.

Multiply by 6 Flor. Value of the Livre Grös,
 (more.)

It will produce 1983 Flor. 8 Sols, of the Bank, and

Amsterdam upon Bremen.

Holland negotiates with *Bremen* 4780 Rixdollars,

the Exchange at 113 Rixdollars of 72 Groffes, for 100
 Rixdollars of 50 Sols; to know what must be received
 at *Bremen*.

Say, 100 *Amsterdam* 113 *Bremen* 4782 *Amsterdam*.

This done, by the common Rule of Three, the
 Answer will be, 5403 Rixdollars, and 47 Groffes.

Amsterdam upon Embden.

Holland negotiates 7872 Rixdollars, at 125 Rixdol-
 lars, of 54 Stivers, for 100 Rixdollars of *Amsterdam*;
 to know what must be received at *Embden*.

If 100 *Amsterdam* 125 *Embden* 7872 *Amsterdam*

Take $\frac{1}{4}$ Part 1968

These added together, the Answer is, 9840 Rixdollars
 must be received at *Embden*.

Amsterdam upon Berlin.

Holland negotiates 752 Rixdollars of 50 Stivers with
Berlin, Exchange 123 Rixdollars of 30 Groffes, for
 100 Rixdollars of *Amsterdam*; to know what must be
 received at *Berlin*.

If 100 *Amsterdam* 123 *Berlin* 752 *Amsterdam*

This done, by the common Method, the Answer
 is, 924 Rixdollars, 28 Groffes, must be received at
Berlin.

Amsterdam upon Sweden, or Stockholm.

When *Amsterdam* changes upon *Sweden*, or *Stock-
 holm*, it is done by *Sweden* giving to *Amsterdam* Rix-
 dollars of 50 Stivers current, to receive Marks at
Stockholm, 4 of which make a Dealler, which is the
Swedish Rixdollar, or Crown; of those Marks there
 are 20 to 27 given for the said Rixdollar of 50 Sti-
 vers, or Sols: So that if it was wanted to draw, or
 remit, for Example, 1500 Rixdollars of 50 Stivers,
 at the Rate of 23 Marks per Rixdollar; it must be
 done in the following Manner:

Multiply the 1500 Rixdollars, of
 50 Stivers,

By the Price of the Change, at 23 Marks for 1
 Rixdollar;

The Product is 34500 Marks.

Take the $\frac{1}{4}$, which is 8625 Deallers of Copper;
 and divide by 6, to have 1437 $\frac{1}{2}$ Rixdollars of 24
 Marks.

Amsterdam upon Denmark, or Copenhagen.

There are seldom any Remittances made by *Amster-
 dam* to *Copenhagen*, but almost all Remittances are by
Copenhagen upon *Amsterdam*, and are from 2 to 10 per
 Cent. Loss for *Denmark*, where the Rixdollars are
 reckoned at 96 Stivers, or at 6 Marks *Dan*, or *Danish*,
 or 3 Marks *Lubs*, making the Mark of 16 Stivers, or
 Skellings *Dan*, or of 32 Groots. Suppose, then,
 that *Amsterdam* would change upon *Copenhagen* 200
 Rixdollars of 50 Sols current Money, at the Rate of
 105 $\frac{1}{2}$ Rixdollars of 6 Marks *Dan*, for 100 Rixdollars
 of 50 afore said; the Operation must be as follows:

If 100 current Rixdollars of 50 Stivers, give 105 $\frac{1}{2}$
 Rix. of 6 Marks; how many 200 current Rix. of 50
 Stivers?

The Product will be, 211 Rix. of 6 Marks.

Amsterdam upon Stetin.

The Remittances between *Amsterdam* and *Stetin* are
 ordinarily made by Rixdollars of 50 Stivers, current
 Money of *Amsterdam*, to receive at *Stetin* Rixdollars of
 36 Skellings *Lubs* of 1 to 5 Profit for *Amsterdam*, and
 of Loss for *Stetin*, where there is seldom any Change
 made. But suppose *Amsterdam* should want to change
 upon *Stetin* 150 Rixdollars at the Rate of 50 Stivers
 current Money, at the Rate of 105 Rixdollars of 36
 Skellings, for 100 Rixdollars of 50 Stivers; the Ope-
 ration is thus:

If 100 current Rix. give 105 Rix. of 36 Skel. how
 many 150 current Rix. of 50 Stivers?

The Product is 157 $\frac{1}{2}$ Rix. of 36 Skell.

Amsterdam

Amsterdam upon Muscovy, or Russia.

Holland draws upon Russia for 7429 Rixdollars, Exchange at 104 Copecks per Rixdollar; to know what Sum this Draught will come to in Russia: Multiply the Rixdollars by the Copecks, and divide the Product by 100; the Answer will be, 7726 Roubles, 16 Copecks.

Amsterdam upon Cologne.

Holland negotiates 3450 Rixdollars of Amsterdam with Cologne, Exchange 126 of Cologne for 100 of Amsterdam; to know how many must be received at Cologne.

If 100 Amsterdam 126 Cologne 3450 Amsterdam.

This done, by the common Rule of Three, the Answer will be, 4347 Rixdollars.

Amsterdam upon Liege and Maestrich.

Amsterdam changes upon Liege and Maestrich at so much per Cent. Profit or Loss, and oftner at the Par: Therefore Amsterdam, wanting to draw upon, or remit to Liege 2500 Florins of 20 Stivers, of current Money, at the Par; to know how much must be receiv'd at Liege. The 20 Stivers of Liege are worth but 12½ Stivers current at Amsterdam.

Suppose 2500 Florins of 20 Stivers current of Amsterdam are drawn, or remitted;

Take the $\frac{1}{2}$, which is	1250
Then the $\frac{1}{2}$ of the 1250	250

The whole will give — 1500 Florins, current Money of Liege.

The current Prices of the Exchanges of Brabant, Flanders, &c.

Brabant, Flanders, &c. give to London from 26 Skillings to 38, for 1 Pound of 20 Shillings Sterling; and to

Holland, from 100 to 108 Liv. Flemish, for 100 of Amsterdam or Holland.

France, from 60 to 80 Groots, for 1 Ecu of 60 Sols, or 3 Livres Tournois.

Spain, from 80 to 100 Groots for 1 Ducat of 375 Maravedi's.

Portugal, from 40 to 60 Groots, for 1 Cruzade of 400 Rees.

Hambourg, from 33 to 35 Stivers, for 1 Dollar of 32 Stivers Lubs.

Venice, from 90 to 100 Groots, for 1 Ducat of 24 Groffes Banco.

Genoa, from 90 to 100 Groots, for the Pezzo of 5 Lires.

Leghorn, from 92 to 100 Groots, for the Pezzo of 6 Lires.

Frankfort, from 80 to 90 Groots, for the Florin of 65 Crutzers of Exchange.

Nuremberg, from 70 to 80 Groots, for the Florin of 65 Crutzers current.

Note, That these Places do also exchange with some other Towns in Germany, and elsewhere, in the same Manner as Holland or Amsterdam does with the same Places.

Of the Bank and Exchanges of Hambourg.

HAMBOURG is an imperial and Hanse Town of Germany, in the Lower Saxony, situated on the River Elbe, free, and very considerable for its great Commerce. It is a Republick, which only pays some Acknowledgment to the King of Denmark as Duke of Holstein, (Hambourg being a City of that Dutchy) but that Acknowledgment is in Form of Peage, because of the Gluckstads, at the Mouth of the Elbe.

The Bank of Hambourg is one of the best in Europe; and tho' it be not so rich as that of Amsterdam, it is, notwithstanding, as secure. The Monies received in it are, the Rixdollars in Species, the $\frac{1}{2}$, $\frac{1}{4}$, and $\frac{1}{8}$ of Rixdollars; which Species are ordinarily worth $\frac{1}{2}$ or $\frac{1}{4}$ per Cent. more than the Money written by Bills in Bank, i. e. that if Rixdollars be wanted in Species, there must be wrote in Bank $\frac{1}{2}$, $\frac{1}{4}$, and as far as $\frac{1}{8}$ per

Cent. more than the Sum received. If on the contrary, Money in Species be placed in the Bank, the Cash of the Bank makes good $\frac{1}{8}$ and sometimes $\frac{1}{4}$ per Cent. Benefit on the Species; and it is in those Sorts of Species that all the Payments are made in the Bank.

The Bank is under the Directions and Management of four of the most eminent Persons of the City; who are all appointed by the whole Body of the Republick. And in case any of the Officers, Directors, or Managers should, by Connivance, or otherwise, suffer any Diminution to be made on the Treasury of the Bank, the said Body of the Republick stand engaged for making good the Deficiencies: However, to prevent all Frauds, the Officers are obliged to state and clear all Accounts twice a Week. They keep their Accounts in Marks, Stivers, and Deniers Lubs.

The Senate has nothing to do with the Bank, on which they cannot seize, no body having any Knowledge of the Fund of Particulars, because the Book-keepers, before they are promoted to the Post, are obliged to take an Oath of Secrecy. None but the Inhabitants of the City have the Privilege of having an Account in the Bank; and if any Person has occasion they are obliged to pay 50 Rixdollars of 3 Marks Lubs to have an Account open'd for them.

For every Sum enter'd in the Bank under 300 Marks Lubs, they pay 2 Stivers Lubs for entering it; and no Sum under 100 Marks Lubs can be enter'd there; if there happens to be an odd Sum of 9, 10, or 11 Deniers, they write down a Stiver; if it be but 7 or 8, they write but 6 Deniers; and if they be under 6 they take no Notice of them.

The Time of Writing in the Bank is from 7 to 10 in the Forenoon; they may write from 10 to 1, and from 3 to 5 in the Afternoon; but the Party so writing must be obliged to pay 2 Stivers for every Sum enter'd at such Hours.

The Time for inquiring whether a Sum is enter'd, is also from 7 to 10; and the Party may be inform'd between the Hours of 10 and 3 and 5 in the Afternoon; but he that knows after 3, must pay two Stivers Lubs to be inform'd; but then he may be answered many Questions of that Nature for the said two Stivers: But the Merchants who have considerable Dealings in the Bank, do commonly give 20, 30, or 40 Marks Lubs per Annum, for any extraordinary Trouble they may give the Officers at undue Hours.

Any Person that has occasion for Money may borrow it at the Bank, leaving a Pledge of Jewels, precious Stones, Gold or Silver Vessels, &c. upon Condition to restore the Sum and Interest in six Months; and if they fail in so doing, the Effects are forthwith exposed to sale, upon a Day specified in a Placart affixed at the Bar to give Notice to any Person that has a Mind to buy them.

The Bank is commonly shut up from the last of December to the 15th of January.

Those who deal only in Exchange keep their Accounts in Bank Money; and those that deal in any other Commerce, keep them in Current Money, which rises and falls according to the Course of the Agio, which is generally between 9 and 18 per Cent. the Bank Money being so much better than Current Money.

The Custom of Hambourg is not to sign the Acceptation of the Bills of Exchange, they only put accepted, with nothing else, which may be done by a Servant, as well as by the Master himself, which is a bad Custom for Acceptations, because they could be denied.

Hambourg has heretofore observed the Old Style, or Julian Calendar, but ever since the 1st of March, 1701, they observe the New Style, or Gregorian Calendar.

Hambourg gives, for the current Prices of Exchanges, to

France, from 20 to 90 Stivers Lubs for 1 Ecu of 3 Livres, or 60 Sols Tournois.

London,

London, from 28 to 38 Shillings for 1 Pound; or 20 Shillings Sterling.

Spain, from 78 to 125 Groots for 1 Ducat of 375 Maravedies.

Portugal, from 40 to 60 Groots for 1 Crusade of 400 Rees.

Holland or Brabant, 1 Dollar of 32 Stivers Lubs for 31 to 35 Stivers, or 98 to 102 Rixdollars of 48 Stivers, for 100 Rixdollars of *Holland*.

Francfort, from 1 Dollar of 32 Stivers Lubs for 45 to 55 Cruitzers of Exchange, or 100 Rixdollars of 48 Stivers Lubs for 115 to 130 Rixdollars of 90 Cruitzers Common.

Nuremberg, from 1 Dollar of 33 Stivers Lubs for 60 to 70 Cruitzers Current, or 100 Rixdollars of 48 Stivers Lubs for 115 to 130 Rixdollars of 90 Cruitzers Current.

Venice, from 85 to 100 Groots for 1 Ducat of 24 Groffes Bank.

Leipsick, from 100 Rixdollars of 48 Stivers Lubs for 115 to 135 Rixdollars of 24 Groffes.

Berlin, from 100 Rixdollars of 48 Stivers Lubs for 115 to 135 Rixdollars of 30 Groffes.

Dantzick, from 100 Rixdollars of 48 Stivers Lubs for 95 to 118 Rixdollars of 90 Groffes.

Flanders, from 16 Stivers Lubs for 16½ to 17½ Stivers of *Flanders*.

Sweden, from 1 Rixdollar to 25 or 26 more or less Copper Marks, and sometimes at so much *per Cent.* in Favour of *Hambourg*.

Muscovy, from 1 Rixdollar for a Ruble, or something more or less, or at so much *per Cent.* in favour of *Hambourg*.

Note, That they exchange with *Geneva* the same as *Paris* and *Lyons*; and Bills are drawn upon *Lubeck* payable at *Hambourg*. It is from this last Place the Term Lubs comes, it being the Place where the Stivers Lubs are coined.

Hambourg upon England or London.

A Merchant of *Hambourg* will remit to *London* 3083 Marks 12½ Stivers Lubs Bank Money, at the Rate of 32 Stivers 4 Groots for 1 Pound Sterling, what Sum must be received in *London*?

Reduce into Groots the 3983 Marks 12½ Stivers Lubs Bank Money,
In multiplying the Marks by 32 Groots, adding 25½ for the 12½ Stivers

The Product will be 98681½ Groots or Groffes.
Multiply afterwards the 32 Stivers 4 Groots of the Price of Exchange,

By the Value of a Stiver 12 Deniers of Groffes, adding the 4d. to it
And you'll have 388 Groots for the Price of Exchange.

Divide the 98681½ Groots, by the 388 Groots, multiplying what remains of the first Division by 20 s. Sterling, and of the second by 12 d. Sterling, reducing the Surplus, if there be any, into Fractions, and you'll have for Answer, that there should be received in *London* 254½ l. Sterling.

Note, That when it is wanted to change upon *Ireland*, or *Dublin*, it is done by Means of the Correspondents of *London*.

Hambourg upon France or Paris, &c.

A Merchant of *Hambourg* will remit to *Paris*, *Lyons*, &c. 2752 Marks, 4½ Stivers Lubs Bank Money, at the Rate of 88 Groffes, or 44 Stivers Lubs for 1 Ecu of 60 Sols, or 3 Livres *Tournois*; or rather, he wants to change 917 Rixdollars 20 Stivers 8 Groffes Lubs, of 40 Stivers for each Rixdollar, at the Rate of 100 Rixdollars for 109½ Ecu's, how many Ecu's or Parts of Ecu's he must receive in *France*?

First Operation by Stivers and Groffes Lubs:

Reduce into Groffes the 2752 Marks 4½ Stivers Lubs of the Bank,

In multiplying the Marks by 32 Groffes, or by 16 Stivers Lubs,

The Product will be 88073½ Groffes to be divided by 88 Groffes.

Take the half and you'll have 44036½ Stivers Lubs to be divided by 44 Stivers.

Divide the 88073½ Groffes by the 88 Groffes, or the 44036½ Stivers by the 44 Stivers; Price of Exchange, multiplying what remains of the first Division by 60 Sols *Tournois*, and of the second by 12 Deniers; reducing the Surplus into Fractions, and you'll have for Answer, that our Merchant should receive at *Paris*, *Lyons*, &c. 1000½ Ecu's.

Second Operation by Rixdollars of 48 Stivers Lubs.

If 100 Rixdollars of 48 Stivers of the Bank—109 Ecu's—917 Rixdollars 20½ Stivers Bank,

The Product will be as above 1000½ Ecu's to be received at *Paris*.

Hambourg upon Spain.

Hambourg will remit to the abovemention'd Places, either at Usance of 2 Months, or double Usance of 4 Months, viz.

Upon <i>Cadiz</i> and <i>Seville</i>	1925	} Marks Lubs, at	124 Deniers for 1 Ducat. 50 Deniers for 1 Crusade. 90 D. for 1 Duc.
Upon <i>Lisbon</i> and <i>Oporto</i>	930		
Upon <i>Venice</i>	2500		

what Sums must be received at the said Places?

Reduce into Groffes the said Mark of 16 Stivers Lubs, in multiplying them by 32 Groffes, Value of the Mark, and the Stivers by 2 Groffes.

You'll have for	{	<i>Seville</i>	61600	} Deniers Lubs.
		<i>Lisbon</i> and	29760	
		<i>Oporto</i>		
		<i>Venice</i>		

Divide the Groffes by the Price of Exchange of each Place, in particular, and multiply what might remain of the first Divisions by 20 Sols, and the second by 12 Deniers, considering the Ducats and Crusades as 20 Sols, and the other Parts in proportion; by which means there must be received

at	{	<i>Seville</i> or <i>Cadiz</i>	496 Ducats 15 S. 5½ Deniers.
		<i>Lisbon</i> or <i>Oporto</i>	595 Crusades 4 S.
		<i>Venice</i>	888 Ducats 17 S. 9½ Deniers.

Hambourg upon Amsterdam.

A Merchant of *Hambourg* negotiates with *Amsterdam* for 2088 Dealders of the Bank, at 33½ Stivers, what Sum must he receive at the said Place?

First Operation by Stivers.

Multiply the 2088 Dealders of 32 Stivers Lubs of the Bank

By the Price of the Change at 33½ Common Stivers, also of the Bank,

The Product will be 6994½ Stivers.

Take the ½ to have 3497 Florins, 8 S. of the Bank to receive at *Amsterdam*.

Second Operation by Rixdollars.

If 100 Rixdollars of 48 Stivers Lubs.—102 Rixdollars of 50 Stivers.—540 Rixdollars of 48 Stivers Lubs.

The Product will be 550½ Rixdollars of 50 Stivers Bank.

Third Operation by Marks Lubs.

If 120 Marks of 16 Stivers Lubs.—102 Florins of 20 Stivers.—1620 Marks of 16 Stivers Lubs.

The Product will be 1377 Florins of 20 Stivers Bank.

According to these three Operations, there should be received at *Amsterdam*

for	{	2088 Dealders at 33½ Stiv.—3497 Flor. 8 Stivers.
		540 Rixdol. at 2 <i>per Cent.</i> —550½ Rixdollars.
		620 Marks at 2 <i>per Cent.</i> —377 Florins.

The whole in Bank Money at both Places.

The current Prices of the Exchanges of Frankfort upon the Main.

FRANKFORT on the Main, in Franconia, distinguish'd from Frankfort on the Oder, in the Marquisate of Brandenburg, is one of the imperial Cities of Germany, in the Diocese of Mentz, or Mayance. It is divided into two Parts by the River, and very famous as well by its Fairs, as by its great Commerce of Bills of Exchange on the principal Parts of Europe.

Every Year there are two Fairs at Frankfort, viz. the Fair of Easter, or Half Lent; and that of September, or Autumn. That of Easter begins always the Sunday before Palm Sunday, which is 14 Days before Easter. That of September begins before the Nativity of the Virgin Mary, which is the 8th of September. If that Feast happens on Monday, Tuesday, or Wednesday, the Fair begins the Sunday before; but if it happens on Thursday, Friday, or Saturday, it begins but the Sunday following; and if that Feast happens on Sunday, the Fair begins that very same Day.

The Bell of Entrance begins always to ring the Sunday before Palm Sunday, for the Fair of Easter; and for that of September the Sunday before the Nativity of the blessed Virgin.

These Fairs last ordinarily two Weeks, or fourteen Days. The first Week is call'd the *Week of Acceptation*, and the last the *Week of Payment*.

The Monies of Frankfort are expressed, and the Merchants Books and Accounts are kept either in Florins, Cruitzers, and Fenins; or in Rixdollars, Cruitzers, and Fenins. The Florin is composed of 60, and the Rixdollar of 90 Cruitzers. They likewise sometimes reckon by Deniers, computing the Florin at 20 Stivers, and the Rixdollar at 30 Stivers; the Stiver of 3 Cruitzers, or 12 Deniers; and the Cruitzer of 4 Deniers, or 8 Fenins.

Frankfort exchanges with Amsterdam several Ways, viz.

In the Time of the Fairs, they generally give the Florin, of 65 Cruitzers of Exchange, for 80 to 90 Groots of Amsterdam.

At other Times they exchange, for the most Part, giving 125 to 130 Rixdollars, of 90 Cruitzers current, for 100 Rixdollars of 50 Stivers of Amsterdam. And sometimes they exchange by the Florin of 60 Cruitzers current.

Frankfort exchanges with London by the way of Amsterdam.

To France, 50 to 60 Cruitzers of Exchange for 1 Ecu of 3 Livres, or 60 Sols.

To Hambourg, 45 to 55 Cruitzers of Exchange for a Dollar of 32 Sols Lubs.

To Venice, 72 to 74 Cruitzers of Exchange for 1 Ducat Banco, or 120 to 125 Florins of 60 Cruitzers for 100 Ducats Banco.

To Nuremberg, 97 to 104 Dollars of Exchange for 100 to 104 Rixdollars.

To Leipfick, 94 to 98 Rixdollars for 100 Rixdollars of 24 Groffes.

To Dantzick, 1 Rixdollar of 90 Cruitzers for 80 to 100 Groffes Polish.

They have so great a Variety of Prices of Exchange at Frankfort, occasioned by the many different Sorts of Money current there, the Empire of Germany being divided into a great Number of Sovereignties, independent of one another, but all paying some Sort of Homage to the Emperor as Head, and every one coining a different Sort of Money current in his own Dominions, and most of those different Sorts of Money going current in Frankfort, and other Places of Trade in Germany; that it is very difficult to give any Account of the Species.

Frankfort exchanges with Geneva, the same as with Paris.

Cologne, the same as with Amsterdam.

Berlin, the same as with Leipfick.

Vienna, Bolzano, and Augsbourgh, the same as with Nuremberg.

The current Prices of the Exchanges of Nuremberg.

NUREMBERG gives to Holland, 1 Florin of 65 Cruitzers current for 70 to 80 Groots; or 120 to 135 Rixdollars of 90 Cruitzers, for 100 Rixdollars of 50 Stivers.

France, 60 to 75 Cruitzers current for 1 Ecu of 3 Livres, or 60 Sols Tournois.

Hambourg, 60 to 70 Cruitzers current for 1 Dollar of 33 Stivers Lubs; or 120 to 140 Rixdollars of 90 Cruitzers for 100 Rixdollars of 48 Stivers Lubs.

Frankfort, 100 to 104 Rixdollars of 90 Cruitzers, for 97 to 104 Dollars of 74 Cruitzers.

Venice, 140 to 150 Florins of 60 Cruitzers, for 100 Ducats Banco.

Dantzick, 1 Florin of 65 Cruitzers, for 50 to 80 Polish Groffes.

Leipfick and Naumbourg, 98 to 105 Rixdollars of 90 Cruitzers, for 100 Rixdollars of 24 Groffes.

Berlin, 98 to 105 Rixdollars of 90 Cruitzers, for 100 Rixdollars of 30 Groffes.

Augsbourg and Vienna, 95 to 100 Rixdollars of 90 Cruitzers, for 100 Rixdollars.

St. Gall, 100 Florins of 60 Cruitzers, for 110 to 115 Florins.

They exchange with Antwerp, the same as with Amsterdam.

Geneva, the same as with France.

Bolzano, the same as with Augsbourgh and Vienna.

France, sometimes in Florins for 100 Livres.

Frankfort, sometimes in Florins.

Hambourg, so many Florins for the Mark Lubs.

The current Prices of the Exchanges of Augsbourgh.

AUGSBOURG exchanges with other Places, giving either the Cruitzer, the Florin of 60 Cruitzers, or the Rixdollars of 90 Cruitzers: They give to

France, 60 to 70 Cruitzers.

Geneva and Novi, 120 to 130 Rixdollars, for 100 Crowns Marks.

Amsterdam, 101 to 105 Rixdollars, for 100 Rixdollars of 50 Stivers.

Frankfort, 95 to 99 Rixdollars, for 100 Dollars of Exchange.

St. Gall, 100 Florins of 60 Cruitzers, for 110 to 115 Florins.

Bolzano, 100 Rixdollars, for 95 to 98 Rixdollars.

The Exchange with London by the way of Amsterdam, or Lyons, or Bourdeaux.

Of the Fairs and Exchanges of Leipfick, Naumbourg, and Hanover.

At Leipfick and Naumbourg are kept certain Fairs, at which Time most Bills of Exchange are payable.

At LEIPSICK, the three memorable Fairs that are kept there every Year, are publicly proclaimed the first Day of each Fair; and the like is done when they end.

The first Fair, which is that of the New Year, begins on the first Day of the new Year, except when New Year's Day falls on a Sunday; then the Fair begins on the Monday following. The second Fair, which they call Easter Fair, begins the third Monday after Easter. The third Fair, of Michaelmas, begins the first Sunday after St. Michael's Day; and if that Feast falls on a Sunday, it begins that Day Sevensnight, and every Fair lasts fourteen Days.

The Elector of Saxony has decreed, in Regard the Merchants have hitherto complained that the Nurembergers observe no certain Time in returning Home, and yet the Time of their uncertain Return is the Period upon which both the Payment, and protesting the Bills, does entirely depend, that Thursday in the Pay Week shall be the Term; or if the New Year Fair begins on Sunday, the fifth Day of the Pay Week, reckoning from that Day upon which the Fair is prohibited, upon the Expiration of the first Week; and the Protest of Bills shall pass till Ten a-Clock at Night, but none shall be received after that Hour.

The

The current Monies of *Leipsick*, are, the Rixdollar, of 24 Groffes.
 Pieces of 3 3ds of the said Rixdollars, or 16 Groffes.
 Pieces of 1 3ds, or 8 Groffes.
 Pieces of 1 6ths, or 4 Groffes.
 Pieces of 1 12th, or 2 Groffes.
 Pieces of 1 and a Half, and others of 1 Gros, 3ds.
 Gros, of 12 Fenins.
 And Pieces of 9, 8, 6, 4, and 3 Fenins, or Deniers.

The Bank, or Monies of Exchange, are between 10 and 20 per Cent. better than the current Money.

Bills of Exchange that are drawn for current Money, are paid 3 4ths of the Contents in 4 Gros Pieces, and the other 4th in Groffes.

Bills that are drawn for Bank, or Money of Exchange, are paid in Rixdollars, which are sometimes call'd Crowns of Exchange.

Bills of Parcels, and Notes, are paid in Groffes. Four Groffes Pieces are worth more than the Groffes about one Half per Cent.

Old Thirds, or 8 Groffes Pieces of *Lunenburg*, *Brandenburg*, and *Saxony*, are worth more than the 4 Groffes Pieces and Groffes together, being call'd current Money about 2 per Cent.

NAUMBURG no ways differs in their Monies, and way of Exchange, from *Leipsick*; except that it has only one Fair in the Year, which is that of St. Peter and St. Paul, beginning upon that Holiday which is the 29th of June, and holds 8 Days.

Leipsick exchanges with *London*, commonly by the way of *Amsterdam*, *Hambourg*, *Paris*, or *Lyons*; and gives to

Amsterdam, 115 to 135 Rixdollars of 24 Groffes, for 100 Rixdollars of 50 Stivers, and sometimes the Rixdollar for 35 to 45 Stivers.

Hambourg, 115 to 135 Rixdollars, for 100 Rixdollars of 48 Stivers Lubs.

France, 90 to 100 Rixdollars, for 100 Ecu's of 60 Sols.

Frankfort, 100 Rixdollars for 94 to 98 Rixdollars of 90 Cruitzers common.

Nuremberg, 100 Rixdollars for 98 to 103 Rixdollars of 90 Cruitzers.

Augsbourg, 90 to 100 Rixdollars for 100 Rixdollars.

Breslaw, 90 to 95 Rixdollars for 100 Rixdollars.

BRESLAW.

The Monies current of *Breslaw*, are, a Rixdollar, valued at 30 Imperial or *Bohemian* Silver Groffes; or 45 white Groffes; or 90 Groffes.

An Imperial, or *Bohemian* Gros, is 3 Cruitzers; or 4 Groffes; or 6 Dryers; or 12 Pence; or 1 white Gros and a Half.

A white Gros is 2 Cruitzers, or 3 Dryers; a Cruitzer 4 Pence; a Gros 3 Pence; a Dryer 2 Pence; a 2 3d Piece 20 Imperial Groffes.

An imaginary Slifs Dollar is worth 24 Imperial Groffes; or 36 white Groffes; or 72 Cruitzers.

Breslaw exchanges with *Amsterdam*, giving the Rixdollars of 30 Imperial Groffes for 30 to 34, more or less, Stivers of *Amsterdam*; or at so much per Cent. in Rixdollars, in Favour of *Amsterdam*.

To *Hambourg* the same.

They have an Exchange with *Berlin*, and other Places.

The Price current of the Exchanges of Prussia, or Berlin.

Berlin exchanges with *London* by the way of *Amsterdam*, or *Hambourg*, and directly sometimes, per the Rixdollar between 4 and 5 Shillings Sterling Exchange.

Berlin gives to *Amsterdam* the Rixdollars of 30 Groffes, for 30 to 40 Stivers.

Or 118 to 130 Rixdollars of 30 Groffes, for 100 Rixdollars of 50 Stivers.

To *Hambourg*, 115 to 135 Rixdollars, for 100 Rixdollars of 48 Stivers.

To *Augsbourg* and *Nuremberg*, 100 Ditto, for 98 to 105 Rixdollars of 90 Cruitzers.

To *Breslaw*, 90 to 96 Rixdollars, for 100 Rixdollars of *Breslaw*.

To *Switzerland*, 128 to 130 Rixdollars, for 100 Rixdollars.

A Pound Sterling in Exchange is worth between 4 and 5 Rixdollars of 30 Groffes.

BREMEN.

Bremen is an Archbishoprick which belongs to the King of *England*, as Duke of *Hanover*, situated on the *Weser*, fifteen Leagues Distance from the *German* Ocean, between *Hambourg* and *Emden*. The Rixdollars are reckon'd there at 48 Sols Lubs, or 72 Groffes.

Bremen changes with *Amsterdam* by the aforesaid Rixdollars, for Rixdollars of 50 Sols current Money, from 115 to 130 Rixdollars, of 72 Groffes, for 100 Rixdollars of 50 Sols.

Therefore suppose it should be wanted to change from *Bremen* on *Amsterdam* 343 Rixdollars $14\frac{2}{3}$ Groffes, at the Rate of 120 Rixdollars of 48 Sols, (or of 3 Marks, or of 72 Groffes Lubs, the Mark of 24 Groffes) for 100 Rixdollars of 50 Sols current Money of *Amsterdam*; to know how much must be received at *Amsterdam*, we'll say,

If 120 Rix. of 72 Groffes, give 100 Rix. of 50 Sols; how many will give 343 Rix. $14\frac{2}{3}$ Groffes, of 72 Groffes?

The Product will be, 286 Rix. of 50 Sols.

After we have multiplied the 343 Rix. by 100, we must likewise multiply the 14 Groffes by 100, and divide the Product by 72 Groffes, (Value of the Rixdollar) there will arise 20, which must be added to the Product of the 343 multiplied by 100, and divide the whole by 120, to have, as above, 286 Rixdollars to receive at *Amsterdam*.

EMDEN.

The Rixdollars of *Emden* are at the Rate of 54 Sols, or of 2 Florins 14 Sols, current Money; and that Place changes on *Amsterdam*, in giving from 120 to 140 Rixdollars aforesaid for 100 Rixdollars of 50 Sols current Money; and they change, likewise, sometimes, in Florins, at 30 to 35 per Cent. Difference.

Suppose one should want to change upon *Amsterdam* 500 Rixdollars of 54 Sols, at the Rate of 125 Rixdollars aforesaid for 100 Rixdollars of 50 Sols current of *Amsterdam*, or 1350 Flor. of 20 Sols of *Emden*, at the Rate of 135 Flor. of this last Place, for 100 Flor. current of *Amsterdam*; he must say, by the Rule of Three,

If 125 Rix. of 54 Sols, give 100 Rix. of 50 Sols; how many will give 1350 Flor. of 54 Sols?

The Product will be, 400 Rix. of 50 Sols.

If 135 Flor. of 20 Sols, give 100 Flor. of 20 Sols; how many will give 1350 Flor. of 20 Sols?

The Product will be, 1000 Flor. of 20 Sols current at *Amsterdam*.

Of the Exchanges of Sweden, or Stockholm.

Stockholm is the Capital of *Sweden*, as its Port is the most famous, and most frequented, of that Kingdom. There are, notwithstanding, other very good Ports and Towns along the Coast of *Sweden*, which is watered on one Side by the *Baltick*, and on the other by the Gulph of *Bothnia*; but the Inhabitants traffick only with Barks, which serve to carry their Commodities to *Stockholm*, and to bring back what they want: So that there are but *Riga* and *Revel* which are privileged.

Riga is between *Livonia*, a Province of *Sweden*, and *Courland*, a Province of *Poland*.

Revel is likewise in *Livonia*, on the Frontiers of *Muscovy*, and on the Gulph of *Finland*. They trade with *Poland* by *Riga*, and with *Muscovy* by *Revel*.

Sweden, or *Stockholm*, changes upon *Amsterdam*, in giving from 20 to 24 Marks for 1 Rixdollar of 50 Sols current, or $83\frac{1}{3}$ Rixdollars 24 Marks, at 100 Rixdollars

lars also of 24 Marks, for 100 Rixdollars of 50 Sols current. Therefore suppose one would remit to *Stockholm* upon *Amsterdam* 34500 Marks, at the Rate of 23 Marks for 1 Rixdollar of 50 Sols; it must be done as above, by the Rule of Three; saying,

If 23 Marks give 1 Rixdollar of 50 Sols; how many will give 34500 Marks?

The Product will be, 1500 Rixdollars of 50 Sols.

The current Prices of Exchanges of Denmark or Copenhagen, and Norway.

These Places exchange with *Hambourg* at the reciprocal Ufance of eight Days Sight, and give 14 per Cent more or less *Agio* to be paid in *Danish* Crowns for Rixdollars in *Hambourg*, to

Amsterdam, more or less than 10 per Cent. *Agio*, in *Danish* Crowns for the Rixdollars of *Amsterdam*.

France, 82 more or less Rixdollars in *Danish* Crowns, for 100 Ecu's of 60 Sols *Tournois*.

London, they give between 4 and 5 Rixdollars in *Danish* Crowns for 1 Pound of 20 Shillings *Sterling*; or *London* gives between 4 and 5 Shillings *Sterling* for the Rixdollar.

Leipsick, 84 more or less Rixdollars in *Danish* Crowns for 100 Rixdollars of New 2 3ds of *Leipsick*.

Note, That they make all their Payments in *Danish* Crowns, and value their Exchanges by the Rixdollar. From this it is plain, that in *Denmark* and *Norway*, they keep their Accounts in *Danish* Crowns, Marks, and Shillings, reckoning 4 Marks to a Crown, and 16 Shillings to a Mark.

Changes of Stetin in Pomerania.

STETIN is one of the fairest, and greatest of the Hanse Towns, Capital of *Pomerania*, divided into two unequal Parts by the *Oder*, and 18 Leagues distant from the principal Port, where there is a very fine Road. Ships go up by 9 or 10 Foot Water, as far as *Stenwet*, distant 2 Leagues from the Road, where they load and unload; or at *Wolgast* which is two Leagues further.

A Rixdollar is reckoned in this Dutchy at 36 Stivers Lubs.

Draughts and Remittances between *Stetin* and *Amsterdam* are commonly made by Rixdollars of 36 Stivers Lubs, for the Rixdollars of 50 Stivers in *Amsterdam*, at 1 to 5 per Cent. Loss to *Stetin*.

Exchanges of Bolzano.

This Place has very great Dealings in Exchanges with several Parts of *Germany*, *France*, *Italy*, and *Switzerland*, and very great Fairs are kept there for Exchange.

The most considerable Money is *German* Dollars and Rixdollars. Their Rixdollars are of two Sorts, viz. of 93 Cruitzers and 90 Cruitzers; and there is but a very small Difference between their Dollars and the Dollars of Exchange of *Frankfort*: They likewise make use of the Florin of 60 Cruitzers.

They exchange in four different Manners with most of the considerable Towns in *Italy*, *Germany*, *France*, *Switzerland*, &c. for they give to

Lions, 80 to 90 Cruitzers, for 1 Crown of 60 Sols *Tournois*.

Florence, 115 to 120 Cruitzers for 1 Crown of 7½ Lires.

Frankfort,
Augsbourg, and } 95 to 98 Rixdollars for 100 Rixdollars of those Places.
Nuremberg,

Bergam, the Rixdollar of 93 Cruitzers, for 150 to 170 Soldi.

Bologn, the Florin of 60 Cruitzers, for 55 to 79 Soldi.

Venice, the Florin of 93 Cruitzers, for 130 to 140 Soldi Banco.

Ancona, the Florin of 60 Cruitzers, for 55 to 60 Bayoks.

St. Gall, 100 Florins of 60 Cruitzers, for 110 to 115 Florins.

Exchanges of Archangel and Peterburgh in Muscovy.

ARCHANGEL is a considerable Port in *Muscovy*, on the River *Wina*, which disembogues into the *White Sea*, at 7 or 8 Leagues from the Town. There has formerly been kept here a considerable Market or Fair every Year, which usually begun in the Month of *September*, and terminated in the Month of *December*; but since the Trade is removed with the Merchants to *Peterburgh*, the Fair is removed thither: However, the usual Way of Dealing in these Fairs was commonly by way of Truck, or bartering one Country Goods for another; and sometimes Goods were bought for part Money, and part Goods: And this usually was observed among the Merchants; those that had Money to spare in the Fair Times, were sure to make greater Advantages by it than could be made at any other Time, by reason the *Agio's* were considerable higher at those Times, between that Place, *Amsterdam*, and *Hambourg*, than it was at other Seasons in the Year.

Russia gives to *Hambourg*, the Rouble for the Rixdollar of 48 Stivers Lubs.

And to *Amsterdam*, the same for the Rixdollar of 50 Stivers.

Russia exchanges with *London* generally by Bills upon *Amsterdam* or *Hambourg*; but when they exchange directly with *London*, the Exchange runs between 4 and 5 Shillings *Sterling*, per Rouble.

Exchanges of Geneva upon the Principal Places of Europe.

GENEVA, a City of the antient *Allobroges*, on the Frontiers of *Savoy*, is situated on the *Rhofne*, at the Extremity of the Lake *Leman*; it is a sort of Commonwealth.

The current Monies of *Geneva*, are, the Rixdollar, worth 10 Flor. 6 Sols; the *Spanish* Pistole, worth 38 Flor. 6 Sols; the Pistole of *Italy*, worth 37 Flor. 6 Sols; the Croizat of *Genoa*, worth 15 Flor. 6 Sols; the Ducatoon of *Milan* or *Savoy*, worth 12 Florins 6 Sols; the Florin, worth 12 S. or 6 Sols of *France*; the Sol, worth 12 Deniers.

The small Money of *Geneva* differs from that of *Switzerland* and *France* of 5 per Cent. for 40 Sols of *Geneva*, or 3½ Florins, make 10 Buts of *Switzerland*, and 20 Sols *Tournois*; i. e. that the Florin of 12 Sols make but 5 Sols, 8¾ Deniers *Tournois*; but notwithstanding the said Florin is reckoned as 6 Sols of *France*.

The foreign Monies current at *Geneva*, are, the old Louis d'Or of *France*, which are worth 11¼ Liv. of *France*; or 3¾ Ecu's; or 3 Bajoures; or 3 Ducatoons of *Holland*; the Ducatoons of *Holland* are worth 3¾ Livres of *France*; the Patagons or Talers, of *Burgundy* and *Germany*, 3 Liv. of *France*; the Ducatoons of *Venice*, 3¾ Liv. of *France*; the Croizats of *Genoa*, 4½ Livres of *France*; the Pistoles of *Italy*, which are those of *Piedmont*, &c. 10 Liv. to 17 or 18 S. of *France*; the Ducats, 6 Liv. 2 to 3 Sols of *France*.

The Money of *Geneva* is worth 5 per Cent. less than that of *France*.

Geneva upon Holland or Amsterdam.

A Merchant of *Geneva* will draw upon or remit to *Holland*, or *Amsterdam*, 816¾ Crowns, at 90 Groots, for 1 Ecu of *Geneva*, how much is he to receive at that Place?

Multiply the ——— 816¾ Ecu's of *Geneva*,
By the Price of the Exchange at 90 Groots of the Bank,

The Product will be — 7595½ Groots.

Take the ¼ to have — 1898¼ Florins of 20 Sols at *Amsterdam*.

Geneva upon Paris, Lyons, &c.

Geneva negotiates with *Paris*, *Lyons*, &c. for 1940¼ Ecu's, at 105 Ecu's of *France*, for 100 Ecu's, what must be received at *Paris*?

Say by the Rule of Three, If 100 Ecu's of *Geneva* make

make 105 Ecu's of *France*, how many will make 1904½ Ecu's of *Geneva*?

The Product will be 200000.

Divide the 200000 by 100, in taking off the two last Figures, and you'll have for Answer, that there must be received at *Paris* or *Lyons*, &c. 2000 Ecu's of 60 Sols *Tournois*.

Geneva upon Leghorn.

Geneva negotiates with *Leghorn* for 1224 Ecu's at 100 Piaftres for 102 Ecu's, how much must they receive at *Leghorn*?

If 102 Ecu's of *Geneva* give 100 Piaftres, how many give 1224 Ecu's of *Geneva*?

There will be 1200 Piaftres to receive at *Leghorn*.

Geneva upon Genoa.

Geneva negotiates with *Genoa* 1545 Ecu's, at 100 Piaftres for 103 Ecu's of *Geneva*; what should they receive at *Genoa*?

If 103 Ecu's of *Geneva* make 100 Piaftres; how many will make 1545 Ecu's of *Geneva*?

There will be, 1500 Piaftres to receive at *Genoa*.

Exchanges of Savoy and Piedmont.

SAVOY is a sovereign Dutchy in *Europe*, between *Piedmont* and the *Vallais*, *Switzerland*, the *Rhofne*, *Dauphine*, and *Provence*.

PIEDMONT is a Principality of *Italy*, belonging to the Duke of *Savoy*, and *Turin* the Capital thereof.

In *Savoy* and *Piedmont* they make Use more commonly of the Gold and Silver Species of *France*, than those of *Savoy*; and in all Bargains, Purchases, Markets, &c. no other Species are mention'd but *Florins*, tho' they be imaginary ones.

The real and imaginary Monies of *Savoy* and *Piedmont*, are,

The *Madonines*, or Pistoles of *Savoy*, worth 13 Lires; the Ducatoons, worth 7 Flor. or 84 Sols; Ecu's of *Savoy*, worth 3 Lires 12 Sols; the Lires, worth 20 Soldi; the Soldi, worth 4 Quart. or 4 Liards. The Ecu of 3 Lires, or 3 Lires 12 Soldi, is worth 5 Sols of *Holland*, or 60 Sols of *France*.

Their Accounts are kept in *Lires*, *Soldi*, 11 *Quatrins*.

All Draughts and Remittances, from *Turin* upon *Holland*, or *Amsterdam*, are made by means of the Correspondencies of *Geneva*.

Suppose it should be wanted to draw upon, or remit to *Geneva* 1464 Ducatoons 24 Soldi of *Savoy*, at the Rate of 82 Soldi for 1 Ecu of *Geneva*. The 1464 Ducatoons 24 Soldi must be reduced into Soldi, in multiplying the Ducatoons by 84 Soldi, its Value.

The Product will be, with the 24 Soldi, 123000 Soldi of *Savoy*.

Divide the 123000 Soldi by the 82 Soldi of the Price of the Change, and you'll have 1500 Rixdollars (or Ecu's) to receive at *Geneva*, which are chang'd afterwards for *Holland*, according to the Change of *Geneva* upon *Amsterdam*.

One can draw directly from *Amsterdam* upon *Turin*.

The Exchanges of St. Gall.

ST. GALL is a Republick on the Frontiers of *Sua-bia*; the Prince is the Abbot of the celebrated Monastery of *St. Gall*, of the Order of *St. Benedict*.

The real Monies of *St. Gall*, are,

The Rixdollars of *St. Gall*, worth 102 Cruitzers, or 25¼ Batz; the Florins, or Gouldens, worth 60 Cruitzers, or 15 Batz; the Shillings, worth 6 Cruitzers, or 1½ Batz; the good Batz, or Baches, worth 5 Cruitzers; the ordinary Batz, worth 4 Cruitzers; the Cruitzers, or ¼ of Batz, worth 4 Deniers.

The current Prices of the Exchanges of *St. Gall*, are,

For *Lyons*, 84 to 100 Cruitzers for 1 Ecu of 60 Sols.

Geneva, 102 to 106 Cruitzers for 1 Ecu of the same Value.

Milan, 16 to 20 Cruitzers for 1 Livre of *Milan*.

Augsbourg, 110 to 115 Florins for 100 Florins of *Augsbourg*.

Bolzano, 110 to 115 Florins for 100 Florins of *Bolzano*.

Nuremberg, 110 to 115 Florins for 100 Florins of *Nuremberg*.

Vienna, 80 to 115 Florins for 100 Florins of *Vienna*.

Venice, 160 to 170 Florins for 100 Ducats Banco of *Venice*.

Genoa, 20 to 24 Cruitzers for 1 Livre of *Genoa*.

Frankfort, 112 to 115 Florins for 100 Dales of 74 X of Exchange.

They keep their Accounts in *Florins*, *Cruitzers*, and *Deniers*.

120 Cruitzers, or 30 Batz, are at the Par of 50 Sols of *Holland*, or 60 Sols *Tournois* of *France*.

St. Gall negotiates with *Lyons* for 2730 Florins 12 Cruitzers, at the Rate of 93½ Cruitzers for 1 Ecu of 60 Sols *Tournois*; to know how much he is to receive at *Lyons*?

Reduce into Cruitzers the 2730 Florins 12 Cruitzers,

In multiplying them by — 60 Cruitzers, adding the 12 X;

The Product will be — 163812 Cruitzers, at 93½ X for 1 Ecu.

Reduce them into ½ X — 2

You'll have — 327624 to be divided by 187 Half Cruitzers.

Divide the 327624 by 187, and you'll have 1752 Ecu's of 60 Sols to receive at *Lyons*.

They follow, yet, the *Old Style*, at *St. Gall*.

Exchanges of Vienna in Austria.

The real Monies of *VIENNA* in *Austria*, are,

The Louis d'Or of *France*, worth 7 Florins, 30 Cruitzers; the *Spanish* Pistoles, worth 7 Flo. 30 Cruit. the Sequins of *Venice*, worth 4 Flo. 15 Cruit. the Gold Ducats, Imperial, and others, worth 4 Flo. the Gold Ducats of *Bavaria*, worth 3 Flo. 30 Cruit. the Crowns of *Venice*, worth 2 Flo. 18 Cruit. the Rixdollars in Species, worth 2 Flo. the Rixdollars imaginary Money, worth 1 Flo. 30 Cruit. the Florins, at present an imaginary Money, worth 60 Cruit. the 17 Cruitzers, real Money, which were worth formerly 15 X, at present 17 Cruit. the 7 X real Money, worth formerly 6 X, at present 7 Cruit. the Sols, or Shillings, 7 X 2 D; the Grosses, worth 3 Cruit. 12 D; the Patres, worth 4 Cruit. the Half Patres, worth 2 Cruit. the Cruitzers, worth 4 Den. the Half Cruitzers, worth 2 Den. the Fenins, worth 1 Den. the Dreyers, worth 3 Den.

The current Prices of Exchanges of *Vienna*, are as follow, viz.

Upon *Lyons*, 95 to 98 Rixdollars of 90 Cruitzers, for 100 Ecu's of 60 Sols.

Frankfort, 95 to 98 Rix. Ditto, for 100 Rix.

Nuremberg, 100 Rix. Ditto, for 95 to 100 Rix.

Augsbourg, 100 Rix. Ditto, for 95 to 100 Rix.

Venice, 100 to 98 Rix. Ditto, for 100 Ducats Banco.

St. Gall, 100 Flo. of 60 X, for 105 to 110 Flo.

Their Accounts are commonly kept in *Florins*, *Cruitzers*, and *Fenins*.

Exchanges of Italy, and all the Mediterranean.

Exchanges of VENICE.

VENICE is a very considerable Republick in *Italy*, which has subsisted for twelve hundred Years past.

There are two Banks in *Venice*; in the one, Payments are made in current Money; and in the other only in Bank Money; the latter being better than the former, according to the Decree of the Senate 20 per Cent. which is the establish'd *Agio*.

The latter of these two Banks, which pays only in Bank Money, is one of the most considerable in *Europe*, having a Fund of five millions of Ducats deposited by the Subjects into the Hands of the Republick, who

who are Sureties for the same, and pay the Salaries of all the Book-keepers, Cashiers, and other Officers, for whose Honesty and Care the Republick stands engaged, and make Restitution of all the Monies or Sums to the Bank, which may happen to be lost by fraudulent Practices, or may otherwise be embezzell'd by the Mismanagement of the Officers.

This Bank is shut up four Times in the Year, to wit, on the twentieth of *March*, the twentieth of *June*, the twentieth of *September*, and the twentieth of *December*; and remains twenty Days shut every Time. During the shutting, it is no Impediment in Trade, by reason the Merchants may negotiate and dispose of Sums in Bank upon the Exchange, as well as when it is open: And it is likewise shut every *Friday*, to ballance the Books, unless there be a Holiday in the Week. It is also shut for eight or ten Days at *Shrovetide*, and the *Passion Week*.

The Value of Bills of Exchange drawn upon other Places, and for Fairs, are commonly paid in Bank Money.

No endorsed Bills of Exchange can be paid in Bank, but the Person in whose Favour a Bill is drawn upon the Bank of *Venice* must send a Procuration to receive the Money for him, or else must get the Bills drawn in his Correspondent's Name.

Bills of Exchange payable in Bank, are not to be protested while the Bank is shut, nor till the sixth Day after it is open'd.

Notwithstanding what has been said before, in Relation to endorsed Bills, it seems the Bankers of *Venice* have found a Way to evade the Law relating thereto, the Procuration being only a Trick of theirs to take in their Provisions. However, to prevent the Loss of Time, Damages in returning, &c. the surest Way is, to let the Bills be drawn payable to such Persons you intend to send them to.

They keep their Accounts in several different Manners, at *Venice*; for there are Merchants, or Bankers, who keep them by Livres, Sols, and Deniers Gros; others by Ducats Banco, and Ducats current; but the Republick keep them by Ducats and Grosses.

Venice gives to

London, 1 Ducat, for 55 to 60 *d.* Sterling.

France, 90 to 105 Duc. for 100 Ecu's of 60 Sols *Tournois*.

Spain, 1 Duc. for 380 to 400 Maravedi's.

Holland, Brabant, and Hambourg, 1 Duc. for 90 to 100 Groots.

Novi, 180 to 190 Duc. for 100 Ecu's of Mark.

Genoa, 100 to 124 Soldi, for 1 Ecu of 4 Lires.

Milan, 150 to 200 Soldi, for 1 Ducat of 115 Soldi.

Naples, 100 Duc. for 90 to 100 Ducats of 10 Carlins.

Rome, 100 Duc. for 50 to 80 Crowns of Stamp.

Florence, 100 Duc. for 70 to 80 Crowns of 7½ Lires.

Leghorn, 100 Duc. for 95 to 100 Piasters of 6 Lires.

Lucca, 100 Duc. for 80 to 85 Crowns of 7½ Lires.

Frankfort, 100 Duc. for 120 to 124 Flo. of 60 Cruitzers.

Nuremberg, 100 Duc. for 140 to 150 Flo. of 60 Cruits.

St. Gall, 100 Duc. for 150 to 170 Flo. of 60 Cruits.

Venice upon London.

Venice negotiates with *London* for 1500½ Ducats, at 62 *d.* Sterling per Ducat; to know what must be receiv'd in *London*.

Multiply the _____ 1500½ Ducats Banco, of 24 Grosses,
By the Price of the Change, at 62 *d.* Sterling;

The Product will be _____ 93031 *d.* or Pence Sterling.

Divide the 93031 Pence Sterling by 240 Pence, (Value of the Pound Sterling) multiplying what remains of the first Division by 20, and of the second by 12 Pence Sterling, dividing the Product by 240;

the Answer will be, that there should be received in *London*, 387 *l.* 12 *s.* 7 *d.* Sterling.

Venice upon France.

Venice negotiates with *Paris, Lyons, &c.* for 1030 Ducats, at 103 Ducats for 100 Ecu's of 60 Sols *Tournois*; to know what must be receiv'd at *Paris, Lyons, &c.* say,

If 103 Ducats give but 100 Ecu's, how many will give 1030 Ducats?

The Answer is, that 1000 Ecu's, of 60 Sols *Tournois*, should be receiv'd at *Paris*.

Venice upon Amsterdam, or Brabant.

A Merchant of *Venice* will draw upon, or remit to *Amsterdam, Antwerp, &c.* 1235½ Ducats, at 90 Groots for 1 Ducat; what must he receive at *Amsterdam, Antwerp, &c.*

Multiply the _____ 1235½ Ducats Banco, of 24 Grosses,
By the Price of the Change, at 90 Groots;

The Product will be _____ 11119½ Groots.
Cut off the 5, and take ½, to have 2779 Flor. 17½ *S.*
Banco to receive at *Amsterdam*.

Take the ½, to have _____ 460 Liv. 6½ Stivers of Exchange at *Antwerp, &c.*

Venice upon Hambourg.

Venice negotiates with *Hambourg* for 888 Ducats, 17 *S.* 9½ *D.* at 90 Deniers for 1 Ducat; what should be the Sum to be receiv'd at *Hambourg*?

Multiply the _____ 888 Ducats, 17 *S.* 9½ *D.* Bank,
By the Price of the Change, at 90 Deniers;

The Product will be _____ 80000 Grosses, to be divided by 32 Grosses.

Or take the ½, which is _____ 20000

Again the ¼, which is _____ 5000

Then the ¼, to have _____ 2500 Marks of 16 Stivers Lubs of the Bank, to receive at *Hambourg*.

Venice upon Spain.

Venice negotiates with *Seville, Cadiz, &c.* for 961½ Ducats, at 390 Maravedi's for 1 Ducat; what is the Sum to be receiv'd at those Places?

Multiply the _____ 961½ of the Bank, of 24 Grosses,
By the Price of the Change, at 390 Maravedi's;

The Product will be _____ 374920 Maravedi's, to be divided by 375 Maravedi's.

The Answer is, that the Sum to be receiv'd is 999 Ducats of 295 Maravedi's.

Venice upon Novi.

A Merchant of *Venice* remits to *Novi* 2312½ Ducats at 185 Duc. for 100 Ecu's; to know what he is to receive at *Novi*, say,

If 185 Ducats give but 100 Ecu's Mark; how many will 2312½ Ducats?

The Answer is, that he is to receive at *Novi* 1250 Ecu's Mark.

Venice upon Genoa.

Venice negotiates with *Genoa* for 960 Ducats, at 110 *S.* for 1 Ecu of 4 Lires; what is the Sum to be receiv'd at *Genoa*?

Multiply the _____ 96 Ducats of Bank, of 24 Grosses,
By _____ 124 Venetian Soldi, Value of the Ducat;

The Product is _____ 119040 Soldi of the Bank, to be divided by 110 *S.* of *Venice*.

The Answer will be, that there should be receiv'd at *Genoa* 1082½ Crowns of 4 Lires.

Venice upon Milan.

A Merchant of *Venice* remits to *Milan* 1260 Duc. at 160 Venetian Soldi for 1 Duc. of 115 Soldi; what must he receive at *Milan*?

Multiply

Multiply the — 1260 Ducats of 24 Gros.
By — 124 Venetian Soldi, Value of
the Ducat. —
The Product will be 156240 Soldi of the Bank, to be
divided by 160 Soldi of Venice.
And the Answer is, That the Merchant is to receive
at Milan—976½ Ducats of 15 imperial Soldi.

Venice upon Naples.

Venice negotiates with Naples for 686½ Duc. at 96
Duc. of 10 Carlins, what are they to receive at Na-
ples?

Multiply the — 686½ of the Bank of 24 Gros.
By the Price of the Change at 96 Ducats of 10 Carlins.

The Pro- duct	{	Ducats	659	28	} to receive at Na- ples.
				10 Carlins	
		Carlins	2	80	
				10 Grains	
		Grains	8	00	

Venice upon Rome.

VENICE negotiates with Rome for 600 Ducats 65½
Ecu's stamp, to know what must be received at
Rome; say,

If 100 Bank Ducats—give 65½ stamp Ecu's—
how many 600 Bank Ducats?

The Answer is 393 Ecu's, to receive at Rome.

Venice upon Florence.

Venice negotiates with Florence for 2500 Ducats, at
8½ Ecu's of 7½ Lires, to know what, &c. to receive
at Florence; say,

If 100 Bank Ducats—give 8½ Ecu's of 7½ Lires—
how many 2500 Bank Ducats?

The Answer is 2037½ to receive at Florence.

Venice upon Leghorn.

Venice negotiates with Leghorn for 968½ Ducats at
96 Piaftres of 6 Lires, to know what Sum must be
received at Leghorn; say,

If 100 Bank Ducats—give 96 Piaftres of 6 Lires—
how many 968½ Bank Ducats?

The Answer is 929½ Piaftres of 6 Lires to receive
at Leghorn.

Venice upon Lucca.

A Merchant of Venice remits to Lucca, 490 Ducats,
at 80 Ecu's of 7½ Lires, to know what he must receive
at Lucca; say,

If 100 Bank Ducats—give 80 Ecu's of 7½ Lires—
how many 490 Bank Ducats?

The Answer is 392 Ecu's of 7½ Lires, to receive
at Lucca.

Venice upon Frankfort.

Venice negotiates with Frankfort with 2000 Ducats
at 120 Flor. of 60 X. to know what Sum must be re-
ceived at Frankfort; say,

If 100 Bank Ducats—give 120 Flor. of 60 X.
Exchange—how many 2000 Bank Ducats?

The Answer is 2400 Flor. of 60 X of Exchange to
receive at Frankfort.

Venice upon Nuremberg.

Venice negotiates upon Nuremberg for 2000 Ducats,
at 148 Flor. of 60 X current, to know what Sum must
be received at Frankfort; say,

If 100 Bank Ducats—give 140 Flor. of 60 X cur-
rent—how many 2000 Bank Ducats?

The Answer is 2960 Flor. of 60 X current, to re-
ceive at Nuremberg.

Venice upon St. Gall.

Venice negotiates with St. Gall for 1500 Ducats at
160 Florins of 60 X current, to know what Sum must
be received at St. Gall; say,

If 100 Bank Ducats—give 160 Flor. of 60 X cur-
rent—how many 1500 Bank Ducats?

The Answer will be 2400 Flor. of 60 X current to
receive at St. Gall.

Exchanges of Rome upon the principal Places of Europe.

ROME is the Capital of Italy, and once of a most
famous Empire, and of the finest Part of the Universe;
by its Magnificence, Antiquities, and the great Num-
ber of curious Things to be seen there, it is esteemed
one of the fairest Cities of the whole World.—Rome is
situated on the Tiber.

When there is any Exchange made at Rome, the
Banker who furnishes the Bill of Exchange, receives its
Value, in calculating the stamp Crown, at the Rate of
1523 half Quatrins, 5 whereof make 1 Bayock, so
that the 1523 half Quatrins make up 761½ Quatrins,
which make up 15 Jules, 2 Bayocks, 1½ Quatrins.

But when a Bill of Exchange drawn upon somebody
is paid, the Bearer does not receive the Value thereof
otherwise than by calculating 1525 half Quatrins for
every Ecu of stamp, which produces on 100 Ecu's 2
Jules Profit.

Rome gives to London, the Suedi Moneta, or Crown
of 10 Jules, which is reckoned to be worth above 5
Shillings 6d Sterling, for between 55d to 65d, Sterling.

To Genoa ditto, for 115 to 125 Soldi.

To Bergham ditto, for 170 to 190 Soldi.

To Bologna ditto, for 95 to 100 Soldi.

To Ancona 100 ditto, for 99 to 100 Crowns.

To the following Places they give the Crown in
Gold or half Pistole valued at 15 Jules or 15 Jules ½,
this Agio being between the taking up of Bills of Ex-
change at Rome for other Places, and the receiving of
the Money for Bills when they shall become due at
Rome, which is commonly between 2 and 3 Jules in
100 Crowns of Gold, or 2 or 3 Bayocks per Crown.

Rome gives

To Spain, 1 Crown for 360 to 400 Maravedi's.

Bolsam, 1 ditto for 155 to 170 Cruitzers.

Naples, 100 ditto for 120 to 124 Ducats.

France, 30 to be ditto for 100 Ecu's of 60 Sols
Tournois.

Venice, 50 to 83 ditto, for 100 Ducats Banco.

Leghorn, 80 to 90 ditto, for 100 Pezzo's of 7 Lires.

Novi, 98 to 104 ditto, for 100 Crowns Novi.

Lucca, 100 ditto, for 90 to 95 Crowns 7 Lires ½.

The half Pistole of Crown Gold is reckoned to be
worth between 8 and 9 Shillings Sterling.

Exchanges of Bergam.

Bergam gives to Novi, 200 to 220 Crowns for 100
Crowns of Novi.

To Milan 180 to 190 Soldi's, for 1 Ducat of 115
Soldi.

To Lyons, 120 to 130 Soldi, for 1 Ecu Tournois.

To Rome, 170 to 190 Soldi, for 1 Crown of 10
Jules.

To Venice, 1 Crown of 7 Lires for 115 to 120 Ve-
netian Soldi.

In Bergam they keep their Books and Accounts in
Lires, Soldi, and Deniers, reckoning 20 Soldi's to a
Lire, and 12 Deniers to a Soldi.

The current Prices of the Exchange of Ancona.

ANCONA gives to Venice, 80 to 100 Crowns for
100 Ducats Banco.

To Florence, 100 to 115 ditto, for 100 Crowns of
7 Lires and ½.

To Rome, 99 to 102 ditto, for 100 Crowns of 10 Jules.

To Novi, 150 to 160 ditto, for 100 Crowns of Novi.

To Bologna, 95 to 98 ditto, for 100 Crowns of
Bologna.

The Difference between the Money of Exchange,
and the current Money is according to the Quality of
the Specie they make their Payment in.

Exchanges of FLORENCE.

FLORENCE, a City of Italy, Capital of Tuscany, is
situated on the River Arno, which divides it into two
unequal Parts, join'd together by four very large Stone
Bridges: It is rank'd among the greatest Cities of Italy,
having very near 6 Miles Circuit.

The Usances are reckon'd at Florence on the follow-
ing Places, viz.

Upon

Upon *Antwerp*, of 2 Months Date.

London, of 3 Months.

Spain, of 2 and 3 Months.

Lyons, at the Fairs and Payments.

Rome, at 10 Days Sight.

Naples, 20 Days Date.

Venice, 20 Days Date.

Novi, at the Fairs.

The real Monies of *Florence*, or *Tuscany*, are,

The *Pistole* of *Florence*, valued at 20 Lires, or 30 Jules; but Merchants make it pass sometimes for 21 Lires, or 31½ Jules.

The *Ducat*, *Crown*, or *Pezzo*, valued at 7 Lires.

The *Spanish* *Pezzo*, at 5 Lires, or 15 Soldi; which passes current among Merchants for 6 Lires.

The *Testoon*, at 2 Lires, or 3 Jules.

The *Fule* of 8 Grains, at 40 Quatrins.

The *Lira*, or *Livre*, at 20 Soldi, or 1½ Jule.

The *Quilo*, at 13 Soldi, 4 Deniers, which is in the same Proportion the Part of a Lire, as a Mark of 13 Shillings and 4 Pence is of a Pound Sterling.

The *Grace* is 1 Soldo, 2 3ds or 5 Quatrins.

Twelve *Graces* make 20 Soldi.

The *Imaginary Soldo* is worth 3 Quatrins.

The *Black Quattrin* is 1 Double.

60 Quatrins make up 20 Soldi.

The *Graces* are of Silver mix'd with Copper; and the *Quatrins* of base Alloy: These two Sorts of Monies serve to pay the Merchandizes bought daily in the Shops.

The Books and Accounts are kept at *Florence*, by *Crowns*, *Sols*, and *Gold Deniers* of 7½ Lires.

They are summed up by 12 and 20; because 20 Deniers make the Sol, and 20 Sols the Gold Crown. Some keep their Books by *Piafters*, which are call'd *Crowns*.

Florence (in Exchange) gives to

London, 1 Crown of 7½ Lires, for 55 d. to 75 d. Sterling.

Spain, 1 Ditto, for 400 to 430 *Maravedi's*.

Portugal, 1 Ditto, for 600 to 750 Rees.

Milan, 1 Ditto, for 100 to 130 Sols of the Empire.

Palermo and *Messina*, 1 Ditto, for 20 to 30 *Carlins*.

France, 50 to 70 Ditto, for 100 *Ecu's* *Tournois*.

Novi, 120 to 140 Ditto, for 100 Crowns of *Novi*.

Venice, 50 to 80 Ditto, for 100 *Ducats* Banco.

Naples, 100 Ditto, for 115 to 130 *Ducats*.

Leghorn, 115 to 120 Soldi, for 1 *Pezzo* of 6 Lires.

Lucca, 100 Ditto, for 100 to 110 Crowns of 7½ Lires.

Rome, 100 Ditto, for 70 to 90 *Roman* Crowns.

Florence exchanges with *Amsterdam*, *Antwerp*, and *Genoa*, in the same Manner as *Leghorn* does upon the said Places.

Exchanges of Leghorn.

LEGHORN, call'd, in the Language of the Country, *Livorno*, a famous Port of *Italy*, in *Tuscany*, 5 Leagues distant from *Florence*, where almost all the Vessels of all Nations, which sail for the *Levant*, cast Anchor to take in fresh Provisions, or Bills of Exchange, or Money, for *Alexandria*, *Cairo*, *Smyrna*, *Aleppo*, and other Places of the *Levant*, as *Piafters*, or Pieces of 8 Reals; because they are current in all the aforesaid Places; which is the Reason why they are sometimes purchased at 2 or 3 Sols above their just Value.

The *Ufances*, as well as the Money of *Leghorn*, are the same as those of *Florence*.

Leghorn (in Exchange) gives to

Holland, the *Pezzo* of 6 Lires, for 85 to 100 *Groots*.

London, Ditto, for 43 to 78 d. Sterling.

France, Ditto, for 70 to 80 Sols *Tournois*, or 60 to 80 *Pezzo's* for 100 *Ecu's* *Tournois*.

Portugal, the *Pezzo* for 600 to 750 Rees.

Florence, the *Pezzo* for 115 to 120 Soldi.

Genoa, 100 *Pezzo's* for 105 *Pezzo's* of *Genoa*, or 1 *Pezzo* for 100 to 105 Soldi.

Venice, 93 to 100 *Pezzo's* for 100 *Ducats* Banco.

Naples, 100 *Pezzo's* for 112 to 115 *Ducats* of 5 *Turins*.

Novi, 180 to 190 *Pezzo's* for the 100 Crowns Mark.

Rome, 100 *Pezzo's* for 80 to 90 Crowns of Gold.

Geneva, 100 *Pezzo's* for 100 to 105 Crowns of *Geneva*.

Leghorn exchanges with *Hambourg*, *Spain*, and *Marseilles*, the same Way as *Florence* does with the same Places, by giving *Pezzo's*, or Pieces of Eight, to receive the same Species at so much *per Cent*. Profit or Loss, according to the Demands or Occurrences in Trade.

Exchanges of Genoa.

GENOA, a City of *Italy*, on the *Mediterranean*, is the Capital of a small Country called the *State of the Republic of Genoa*. The Coast, or River of *Genoa*, extends itself from the *Var* to the *Magre*, which contains 160 Miles.

Genoa is the most trading City (except *Venice*) of all the others situated on the *Mediterranean* Sea. There are found there Merchants who keep a Correspondence with almost all Parts of the World.

There is a Bank at *Genoa* call'd the *Mont St. Bernard*, where the Pieces of 8 Reals of the Republic are put at 4 *per Cent*.

The Monies of *Genoa* are expressed, and Books are kept in *Lires*, *Soldi*, and *Deniers*; reckoning 12 Deniers to a Soldo, and 20 Soldi to a Lire; tho' some keep their Books in *Pezzo's* of 100 Soldi, and some keep their Accounts in Crowns Marks of Gold, dividing the Crown into 20 Parts, which they call Soldi, and the Soldi into 12 Parts, which they call Deniers of a Crown.

Genoa gives in Exchange to

London, the *Pezzo* of 5 Lires for 45 to 76 d. Sterling.

Holland, or *Brabant*, 1 Ditto for 90 to 100 *Groots*.

France, 100 Crowns Mark for 220 to 260 *Ecu's* *Tournois*.

Tournois, or the *Pezzo* for 70 to 90 Sols *Tournois*.

Spain, the *Pezzo* for 400 to 430 *Maravedi's*.

Portugal, Ditto for 600 to 750 Rees.

Venice, 1 Crown of 4 Lires for 100 to 125 Soldi.

Geneva, 100 *Pezzo's* for 101 to 135 Crowns.

Novi, 118 to 124 Ditto for 100 Crowns Mark.

Milan, 1 Crown of 4 Lires for 80 to 100 Imperial Soldi.

Rome, 115 to 125 Soldi for the Crown of 10 Jules.

Leghorn, 100 to 105 *Pezzo's* for 100 Ditto of *Leghorn*.

Naples, 68 to 92 Soldi for 1 *Pezzo* of 9 *Carlins*.

Exchanges of Novi.

Novi is in the State of the Republic of *Genoa*, on the Confines of *Lombardy*. There are commonly kept the Fairs of *Genoa*, call'd, at present, the Fairs of *Novi*, which are four, kept regularly every Year. The first begins on the 1st of *February*, call'd the *Fair of the Purification*, or of *Candlemas*. The second begins the 2d of *May*, and is call'd the *Fair of Easter*. The third the 1st of *August*, call'd the *Fair of August*. And the fourth the 2d of *November*, call'd the *Fair of All Saints*.

Each Fair lasts 8 Days, and they are sometimes continued 2 or 3 Days longer, to facilitate the Affairs of Bankers and Merchants.

The Books and Accounts are kept, at *Novi*, in *Crowns*, *Sols*, and *Gold Deniers* Mark, which are summed up by 12 and 20, because 12 Deniers make 1 Sol, and 20 Sols 1 Crown Mark; which Crown Mark is imaginary, and is, notwithstanding, reckon'd to be worth Half a *Spanish* *Pistole*; because commonly 49½ make 100 Crowns Mark, which Crown never changes Price.

Novi exchanges with

Spain, 1 Crown Mark for 500 to 600 *Maravedi's*.

France, 100 Crowns Mark for 210 to 230 *Ecu's* *Tournois*.

Venice, 100 Ditto, for 118 to 190 *Ducats*.

Rome, 100 Ditto, for 98 to 104 Crowns of Gold.

Florence, 100 Ditto, for 100 to 104 Crowns of 7½ Lires.

Leghorn, 3

Leghorn, 100 Ditto, for 180 to 190 Pezzo's of 6 Lires.
Genoa, 100 Ditto, for 120 to 124 Pezzo's.
Milan, 1 Ditto, for 150 to 220 Soldi.
Lucca, 100 Ditto, for 140 to 160 Crowns, of 7½ Lires.
Naples, 100 Ditto, for 140 to 160 Ducats of 5 Tarins.
Palermo and Messina, 1 Ditto, for 15 to 30 Carlins.
Bologne, 100 Ditto, for 170 to 180 Crowns of 85 Soldi.
Bergam, 100 Ditto, for 250 to 290 Crowns of 7 Lires.
Ancona, 100 Ditto, for 150 to 160 Crowns of 7½ Lires.

Exchanges of Milan on the principal Places of Europe.

MILAN, a City of *Italy*, Capital of the Dutchy of the same Name, is one of the greatest in *Europe*, and carries on a very considerable Commerce.

Milan exchanges with

London, 1 Ducat for 55 to 67 *d.* Sterling.
Spain, 1 Ditto, for 400 to 450 Maravedi's.
Venice, 1 Ditto, for 150 to 200 Soldi.
France, 70 to 90 Soldi, for 1 Ecu *Tournois*.
Florence, 100 to 130 Soldi, for 1 Crown of 7½ Lires.

Genoa, 80 to 100 Soldi, for 1 Crown of 4 Lires.
Novi, 150 to 200 Soldi, for 1 Crown Mark.
Rome, 100 Ducats, for 80 to 90 Crowns Gold.

Exchanges of Lucca on the principal Places of Europe.

LUCCA is a Republick in the States of *Tuscany*, where the Crowns of Exchange are reckoned at 7 Lires 10 Soldi, the Lire at 20 Soldi, and the Soldo at 12 Deniers.

Lucca exchanges with

France, 40 to 70 Crowns of 7½ Lires, for 100 Ecu's *Tournois*.
Florence, 100 to 110 Ditto, for 100 Crowns of 7½ Lires of *Florence*.
Novi, 140 to 160 Crowns of 7½ Lires, for 100 Crowns Mark.
Rome, 90 to 95 Ditto, for 100 Crowns of Gold.
Venice, 80 to 85 Ditto, for 100 Ducats Banco.
Bologne, 1 Crown of 7½ Lires, for 100 to 110 Soldi of *Bologne*.

Exchanges of Bologne with the principal Places of Europe.

BOLOGNE, call'd the *Grassa*, because of the Fertility of its Soil, is one of the fairest Cities of *Italy*, where most of the Streets are border'd with Porches which support the Houses, and where the Commerce is very considerable.

There are several Mounts in *Bologne*, distinguish'd by perpetual Mounts, and free Mounts; these are Places where ready Cash is receiv'd, for which they give, at the perpetual Mounts, 7 or 8 per Cent. for a Year; and at the free Mounts 4 per Cent.

The current Species of *Bologne*, are, the

Spanish Pistoles, of 15½ Lires, or 310 Soldi, or Boligni's.
Italian Pistoles, of 15 Lires, or 300 Soldi, or Boligni's.
Sequin of Venice, of 9 Lires, or 180 Soldi, or Boligni's.
Hongor of Gold, of 8 Lires 10 Soldi, or 170 Soldi, or Boligni's.
Ducatoon of Milan, 5 Lires 2 Soldi, or 102 Soldi, or Boligni's.
Silver Crown of Genoa, 6 Lires 4 Soldi, or 124 Soldi, or Boligni's.
Pope's, or Roman Crown, 5 Lires, or 100 Soldi, or Boligni's.
Spanish Pezzo, or Crown, 4 Lires 5 Soldi, or 85 Soldi, or Boligni's.
Testoons, of 1 Lire 10 Soldi, or 30 Soldi, or Boligni's.

Jule, of 20 Quatrins, or 3 Soldi 13 *d.* or Boligni's; *Soldo, or Boligni*, is valued at 6 Quatrins.

Bayock, is valued at the same of the *Soldo*, and is the same Thing.

The Books and Accounts are kept at *Bologne* in Lires, Soldi, and Quatrins; reckoning twenty Soldi to a Lire, and six Quatrins to a Soldo.

Bologne exchanges with

Venice, 1 Crown of 85 Boligni's or Soldi of *Bologne*, for 125 to 130 Soldi Banco of *Venice*.

France, 50 to 60 Boligni's for 1 Ecu of 6 Sols *Tournois*.

Rome, 95 to 100 Soldi or Boligni's, for the Crown of 10 Jules.

Novi, 170 to 180 Crowns of 85 Boligni's, for 100 Crowns Mark of *Novi*.

Lucca, 100 Crowns to 110 Boligni's or Soldi, for 1 Crown of 7½ Lires.

Florence, 100 to 105 Soldi for the Ducat, or Crown of 7 Lires.

Naples, 90 to 100 Ditto, for the Ducat of 10 Carlins.

Exchanges of Naples on the principal Places of Europe.

In NAPLES they commonly reckon by Carlins, as in *Holland* they do by Guilders or Florins, or in *Great Britain* by Pounds Sterling; and they keep their Accounts in Ducats, Tarins, and Grains; reckoning 5 Tarins to a Ducat, and 20 Grains to a Tarin.

The real Monies of *Naples* are, the

Spanish Pistole, valued at 33 Carlins.

Italian Pistole, valued at 30 Ditto.

Sequin, valued at 18 Ditto.

Gold Ducat, valued at 12 Ditto.

Gold Crown, valued at 13 Ditto.

Current Ducat, valued at 10 Ditto.

Current Crown, valued at 11 Ditto.

Spanish Pezzo, valued at 9 Ditto.

Tarin, valued at 2 Ditto.

Carlin, valued at 10 Grains.

Grain, valued at 3 Quatrins.

They give in Exchange, the

Gold Crown, of 13 Carlins.

A *Gold Ducat*, of 22 Ditto.

A *Current Crown*, of 11 Ditto.

A *Current Ducat*, of 10 Ditto.

A *Spanish Pezzo*, of 9 Ditto.

NAPLES exchanges with

Spain, the Ducat of 10 Carlins, for 380 to 400 Maravedi's.

Genoa, the Pezzo of 9 Carlins, for 60 to 90 Soldi.

Palermo, the Ducat of 10 Carlins, for 160 to 170 Ponti.

Leghorn, 112 to 115 Ditto, for 100 Piasters of 6 Lires.

Venice, 90 to 100 Ditto, for 100 Ducats Banco.

Florence, 115 to 130 Ditto, for 100 Crowns.

Rome, 120 to 124 Ditto, for 100 Crowns Gold.

Novi, 140 to 160 Ditto, for 100 Crowns Mark.

France, 70 to 100 Ditto, for 100 Ecu's *Tournois*.

Exchanges of Palermo and Messina, on the principal Places of Europe.

The real Monies, and those of Exchange, of *Palermo* and *Messina*, are, the

Ducat, worth 13 Tarins, or 26 Carlins.

Crown, current Gold and Silver, worth 12 Tarins, or 24 Carlins.

Piafter, current of *Sicily*, worth 10 Tarins, or 20 Carlins.

Spanish Piafter, worth 11 Tarins, or 22 Carlins.

Florin, worth 6 Tarins, or 12 Carlins.

Tarin, worth 2 Carlins, or 20 Grains.

Carlin, worth 10 Grains.

Ounce, imaginary Money, worth 30 Tarins, or 60 Carlins, or 20 Grains.

Grain, worth 6 Piccoli,

Eight Piccoli, worth 1 Ponti.

The Books and Accounts are kept by Ounces, Tarins, Grains,

Grains, and *Piccoli*, which they sum up by 30, by 20, and by 6, since the *Ounce* is worth, as we have observed already, 30 *Tarins*, the *Tarin* 20 *Grains*, and the *Grain* 6 *Piccoli*.

Palermo and *Messina* exchanges with,

Spain, 1 *Florin* of 6 *Tarins*, for 230 to 250 *Maravedes*.

Florence, 20 to 30 *Carlins* for 1 *Crown* of 7 *Lires* $\frac{1}{2}$.

Novi, 15 to 30 *Carlins*, for 1 *Crown Mark*.

Naples, 160 to 170 *Ponti*, for 1 *Ducat* of 5 *Tarins*.

Note, That *Palermo* and *Messina* exchange with one another at 10 *per Cent*. Profit or Loss according to the Course of the Exchange: And besides the abovementioned Places, the *Sicilians* do sometimes exchange with *London*, *Antwerp*, *Venice* and *Lyons*, by giving their *Ducats* of 13 *Tarins*, or their current *Crowns* of 12 *Tarins*, for a certain Quantity of the Money of these Places, according to the Course of the Exchange.

Island of Malta.

The celebrated *Island of Malta*, called anciently *Melita*, is situated on the *African Sea*, six Leagues or thereabouts, distant from *Sicily*, the Cape of *Passero*, being North of it. The Sea between both Places, is called the Channel of *Malta*.

There are two considerable Towns in the Island of *Malta*, viz. the old Town, or *Cevita Vecchia*, and that called *Malta*.—The *Maltese* have two Sorts of Money, one of *Silver*, and the other of *Copper*. When they treat or bargain for any Thing, it must always be expressed whether the Payment be in *Silver Money* or *Brass Money*; the *Silver Money* being worth more or less than 50 *per Cent*. more than the *Brass Money*; so that 100 *Crowns* of *Silver* are always worth 150 of *Copper*.

The real Species of the Island of *Malta*; are,

The *Italian Pistoles*, worth 58 *Tarins*.

The *Sequins* or *Ducats*, worth 32 *Tarins*.

The *Piastres*, *Ecu*, or *Real* of *Otto*, worth 16 *Tarins*.

The *Deci Tarini*, worth 10 *Tarins*.

The *Tarins*, worth 20 *Grains*.

The *Carlins*, worth 10 *Grains*.

The *Grains*, worth 6 *Piccoli*.

Exchanges of TURKEY.

CONSTANTINOPLE.

The foreign Monies current at *Constantinople*, are;

The *Venetian Sequin*, worth 280 *Aspres*.

The *Hongre*, worth 240 to 250 *Aspres*.

The *Pezzo* or *Piastra*, worth 108 to 110 *Aspres*.

Note, That this *Pezzo*, when of full Weight, passes in Exchange for Goods for 118 to 120 *Aspres*.

The *Caragrough*, a *German Piece*, worth 120 *Aspres*.

The *Dollars* of *Inspruck*, and several others, worth 115 *Aspres*.

The *Affelanis*, and *French Ecu*, worth 80 *Aspres*.

The *Alrafs*, a *Polish Money*, worth 28 to 30 *Aspres*.

The *Turk*, a *Piece* of *Lorrain*, worth 38 to 40 *Aspres*.

The *Izelote*, a *German Piece*, worth 78 to 80 *Aspres*.

Note, That the *French Pieces* of 5 *Sols* used to pass formerly at *Constantinople* for 4 *Sols* 6 *Deniers*, and the 12 to make 1 *Piastra* *Affelani*, but they are no more current there, because of the vast Quantity of false ones which had been sent thither.

Of SMYRNA.

SMYRNA, by the *Turks* called *Ismir*, is situated in *Natolia* towards the *Archipelago*, and belongs to the *Ottoman Empire*; it is the most considerable of all the *Echelles* of the *Levant*, as well for its great Commerce as for the vast Number of Vessels from all Parts of *Europe*, which anchor there, but especially from *France*, *Italy*, *England* and *Holland*, besides the *Persian Caravans*.

The *French Merchants* carry ordinarily to *Smyrna*, *Sevilian Piastres* of a great Weight, which they buy at *Marseilles* 60 *Sols* 6 *Deniers*, or more, according as they are in want of them; because in considerable Payments they are weighed together, and every 150 *Drachms*, are reckoned 17 *Piastres*, which are 8 *Drachms* for a *Piastra*; and a Merchant would lose 4 or 5 *per Cent*. upon 8 *Piastres*.

Their current Money is the *Affelany* of 80 *Aspres*; but they have *Pieces* of Gold called *Scherifts*, worth 2 *Pezzo's* and $\frac{1}{2}$, or 2 $\frac{1}{2}$ *Piastres*.

Of ALEXANDRETTA, or SCANDARON.

ALEXANDRETTA, by the *Turks* called *Scandaroon*, is a City of *Syria*, at the Extremity of the *Mediterranean Sea*, and is no otherwise considerable than because it is the Port nearest to *Aleppo*, where all Vessels anchor, though it be 25 Leagues distant from *Aleppo*.—All the Merchandizes unloaded at *Alexandretta*, are sent by Caravans to *Aleppo*, which is one of the principal, and best peopled Cities of the *Ottoman Empire*.

The current Money of *Alexandretta* and *Aleppo*, is a sort of *Piastra* much like the *Affelany* of *Constantinople*, and is worth 80 *Aspres*, i. e. 44 to 45 *Stivers* current of *Holland*, or 54 to 55 *Sols Tournois* of *France*.

Of ALEPPO.

ALEPPO, a City of *Syria*, is situated between *Alexandretta* and the *Euphrates*; its Commerce consists in *Silk*, *Camlets*, *Goats Hair*, *Galls*, *Soap*, and several other Merchandizes. Merchants from all Parts of *Europe* resort thither, without mentioning the *Turks*, *Arabs*, *Persians*, and *Indians*.

The current Money of *Aleppo* is the same as that of *Alexandretta*.

Of SEYDA.

SEYDA, a Town of *Phœnicia* in *Syria*, is situated on the Sea-side.—*Seyda* is very rich, its Port was formerly very good, and could contain several Vessels, but at present none but very small Ships can enter it, the great ones anchor in the Road, at some Miles from the Town.

The current Money of *Seyda* is the same as that of *Alexandretta* and *Aleppo*. The *Persians* regulate almost always the Course of Exchange, which is sometimes high, and sometimes low, according as they want to draw or to remit.

Exchanges of Spain with the principal Places of Europe.

SPAIN is the most westward Kingdom of *Europe*; *Madrid* is the Capital thereof and the ordinary Mansion of the Kings. *Madrid* is a new City situated on the little River *Mazanarar*.

Seville on the *Guadalquivir* is the Capital of *Andalusia*, the greatest City in *Spain* after *Madrid*, and one of the richest and the most trading of *Europe*. This City and *Segovia*, are the only two in *Spain*, where there are fabricated Pieces of Gold and Silver. Travellers admire the Neatness of the Place where Merchants meet, to treat of their Commerce: There are several Things to be admired in *Seville*, and it is in that Sense that the *Spaniards* say, *qui no ha visto Sevilla, no ha visto Maravilla*; i. e. He that has not seen *Seville*, has not seen a Wonder.

CADIZ, an Island on the Western Coast of *Andalusia*, northward of the Streight of *Gibraltar*, is joined to the main Land on the East by a Bridge called the *Bridge of the Sac*. The City is peopled with a great Number of very rich Merchants, who have very beautiful Magazines, or Warehouses.

At *Cadiz* arrive the Fleets and Galleons from the *West-Indies*, with Gold, Silver, and other Merchandizes which the *Spaniards* draw from *America*, where all other Nations are forbid trading, under Pain of Death.

The Bills of Exchange drawn from *Antwerp* and *Amsterdam* upon *Spain*, are to be protested, at the Failure of Payment, at *Cadiz*, fourteen Days after they are become due; but if the Person that has one or two Bills of Exchange neglect protesting at that Time, i. e. the

the 14th Day, at the farthest, and the Acceptors happen to break; those Letters, then, are on the Account of the Bearers, and not on that of the Drawers or Endorsers.

Spain gives to

Holland, Brabant, Flanders, Zeland, and Hambourg,

1 Ducat for 78 to 125 Groots.

England, the Peso for 52*d.* to 72*d.* Sterling.

France, between 230 and 290 Maravedi's, for 1 Ecu of 3 Livres, or 60 Sols *Tournois*.

Portugal, 100 Ducats for 180 to 200 Cruzades, or 2 Pistole for 280 to 300 Rees.

Novi, between 500 and 550 Maravedi's for 1 Crown Mark.

Rome, between 360 and 400 Ditto, for a Roman Crown.

Venice, between 350 and 390 Ditto, for 1 Ducat Banco.

Florence, between 400 and 430 Ditto, for 1 Ducat of 7 Lires 10 Sol.

Leghorn, between 400 and 435 Ditto, for 1 Pezzo of 6 Lires.

Genoa, between 400 and 435 Ditto, for 1 Pezzo of 5 Lires.

Milan, between 420 and 450 Ditto, for 1 Ducat of 115 Sols.

Naples, between 370 and 400 Ditto, for 1 Ducat of 10 Carlins.

Palermo and Messina, between 240 and 260 Ditto, for 1 Florin of 6 Tarins.

They have an Exchange with many other Places, and commonly give the Ducat; and the Places of Trade in this Kingdom have a reciprocal Exchange among themselves, commonly at 10 much *per Cent.* more or less, according as Occasion offers. The Merchants of *Spain* are not so strict in observing the Law of Exchange, as they are in *England*.

A Merchant of *Cadiz*, *Seville*, &c. negotiates with *Holland* for 1532 Ducats of old *Plata*, at 121 Groots *per Ducat*; to know how much he is to receive at either of those Places.

Multiply the _____ 1532 Duc. of 375 Maravedi's,
By the Price of the Change, at _____ 121 Groots;

The Product is _____ 18537½ Groots; from which take off the last Figure.

Take the $\frac{1}{4}$, to have _____ 4634 Flor. 6 Stivers Bank at *Amsterdam*,

Then take the $\frac{1}{8}$, to have _____ 772 Livres, 7 S. 8 Gr. at *Antwerp*.

The 18537½ Groots can be divided by 40, and by 240 Groots, if they be divided by 40, and the Half be taken of what will remain to be divided; or it be multiplied by 20 Stivers, dividing the Product by 40 Groots, Value of the Florin; the Product will be, as above, 4634 Flo. 6 S. Bank Money to receive at *Amsterdam*.

If the 18537½ Groots were divided by 240 Groots, and what remains of the first Division should be multiplied by 20 Stivers, and of the second by 12 Groots; the Product would be, as above, 772 Liv. 7 Sols, 8 Groots, Bank or Permission Money at *Antwerp*.

Spain upon *Hamburgh*.

Spain negotiates with *Hambourg* for 496 Ducats, 15 Stivers, $5\frac{3}{4}$ Groots; to know what Sum must be received at *Hambourg*.

Multiply the _____ 496 Ducats, 15 Stivers, $5\frac{3}{4}$ Groots,
By the Price of the Exchange, at _____ 124 Groots for 1 Ducat of 375 Maravedi's; _____
The Product will be _____ 61600 Groots.

Divide the 61600 Groots by 32 Groots, (Value of the Mark Lubs) or by 64 Groots, (Value of the Deakler) or by 96 Groots, (Value of the Rixdollar) taking the Half to have Stivers, and Deniers Lubs; and there will be received, at *Hambourg*, 1925 Marks, or 962½ Deaklers, or 641½ Rixdollars, Bank Money.

Spain upon *England or London*.

SEVILLE, or *Cadiz*, will draw upon, or remit to *London*, (or other Places of *England*) 2344½ Piafters, or Pieces of 8 Reals, at the Rate of 60*d.* Sterling for 1 Piafter, worth 272 Maravedi's; to know what they are to receive in *London*.

Multiply the _____ 2344½ Piafters, or Pieces of 8 Reals,
By the Price of the Exchange, at _____ 60*d.* Sterl. for 1 Piafter;
The Product will be _____ 140670*d.* Sterl. to be divided by 240.

Take the Half, to have 586 Pounds, 2½*d.* Sterling to receive in *London*.

Spain upon *France*.

CADIZ, *Seville*, &c. negotiates with *Paris*, *Lyons*, &c. for 1755½ Ducats, at 280 Maravedi's for 1 Ecu; or for 600 Pistoles, at 100 Pistoles for 105 Louis d'Or; to know what must be received at *Paris*, *Lyons*, &c.

Operation by Maravedi's.

Reduce into Maravedi's the _____ 1755½ Ducats,
In multiplying the Ducats by _____ 375 Maravedi's;

The Product will be _____ 658140 Maravedi's.

Divide the 658140 Maravedi's by 280 of the Price of the Change for 1 Ecu *Tournois* of 60 Sols, multiplying what remains of the first Division by 60 Sols, and of the second by 12 Deniers; and the Answer will be, 2350½ Ecu's of 60 Sols to be received at *Paris*, *Lyons*, &c.

Operation by Pistoles.

Say, If 100 Pistoles give 105 Louis d'Or, how many 600 Pistoles?

The Answer is, 330 Louis d'Or to be received at *Paris*, *Lyons*, &c.

Note, That there are but few Bankers at *Madrid* for *France*; there are only Merchants, and some other Persons who give Bills to *Auvergnats*, from whom they take 5, 6, 7, and as far as 10 *per Cent.* Profit, Pistoles for Pistoles, *i. e.* that they must give in *Spain* from 105 to 110 Pistoles, to receive 100 in *France*. Most of the Treats and Remittances of *Spain* upon *France*, are made by means of the Correspondencies of *Amsterdam*, *Antwerp*, or *Hambourg*.

Spain upon *Novi*.

Spain negotiates with *Novi* for 944 Ducats, at 590 Maravedi's for 1 Crown Mark; to know what Sum must be received at *Novi*.

Multiply the _____ 944 Ducats
By _____ 375 Maravedi's, Value of the Ducat;
You'll have _____ 354000 Maravedi's.

Divide the 354000 Maravedi's by 590 Maravedi's of the Price of the Exchange for a Crown Mark of *Novi*, multiplying what remains of the first Division by 20 Sols, and of the second by 12 Deniers; and you'll have 600 Crowns Mark to receive at *Novi*.

Spain upon *Rome*.

Spain negotiates with *Rome* for 394 Ducats, and 250 at 370 Maravedi's for 1 Crown Stamp; to know what Sum must be received at *Rome*.

Multiply the _____ 394 Ducats, 250 Maravedi's,
By the Value of the Ducat, which is _____ 375 Maravedi's, adding the 250;
The Product will be _____ 148000 Maravedi's, to be divided by 370 P. Ch.
And you'll have 400 Crowns Stamp, of 15½ Jules, to receive at *Rome*.

Spain upon *Genoa*.

Spain negotiates with *Genoa* for 739 Ducats, and 255, at 402 Maravedi's for 1 Piafter; to know what must be received at *Genoa*.

Multiply

Multiply the _____ 739 Ducats,
 255 Maravedi's,
 By the Value of the Ducat, which is 375 Marave-
 di's, adding the 255;
 The Product will be _____ 277380 Marave-
 di's, to be divided by 402 P. Ch.
 And you'll have 690 Piafters 5 Lires to receive at
Genoa.

Spain upon Florence.

Spain negotiates with *Florence* for 480 Ducats, and
 200 Maravedi's, at 400 Maravedi's for 1 Crown of
 7½ L. to know what Sum they must receive at *Flo-*
rence.

Multiply the _____ 480 Ducats,
 200 Maravedi's,
 By the Value of the Ducat, which is 375 Marave-
 di's, adding the 200;
 The Product will be _____ 180200 to be di-
 vided by 400, Price of the Exchange.
 You'll have 450½ Ecu's, of 7½ Lires, to receive at
Florence.

Spain upon Venice.

Spain negotiates with *Venice* for 999 Ducats 295
 Maravedi's, at 390 Maravedi's for 1 Ducat; to know
 the Sum to be receiv'd at *Venice*.

Multiply the — 999 Ducats, 295 Maravedi's,
 By — 375 Maravedi's, adding the
 295;
 The Product will be 374920 Maravedi's, to be divi-
 ded by 390, Price Ch.
 And you'll have 961½ Ducats to receive at *Venice*.

Spain upon Milan.

Spain negotiates with *Milan* for 271 Ducats, 235
 Maravedi's, at 440 Maravedi's for 1 Ducat; to know
 what Sum must be receiv'd at *Milan*.

Multiply the 271 Ducats 235 Maravedi's,
 By — 375 Maravedi's, adding the
 235;
 The Product will be 101860 Maravedi's, to be divided
 by 440, Price of the Exchange.
 And you'll have 231½ Ducats, of 115 Soldi, to re-
 ceive at *Milan*.

Exchanges of Portugal, or of Lisbon and Oporto.

PORTUGAL is an hereditary Kingdom in *Europe*,
 westward of *Spain*; these Dominions are the smallest
 in *Europe*, but are, nevertheless, the most consider-
 able, for their Fertility and Riches. They contain
 six hundred privilegiate Towns, or Boroughs, and more
 than four thousand Parishes. Among the Towns, or
 Cities, *Lisbon* is the capital, one of the fairest and
 richest of *Europe*, situated upon the *Tagus*, which dis-
 embogues into the Ocean. Thither resort, at all
 Times, an extraordinary Number of Merchants of all
 Nations.

Oporto is a trading Town of the same Kingdom,
 towards the Mouth of the *Douro*; it is one of the
 most considerable of *Portugal*, as well for its *Commerce*,
 as for its Antiquity.

The Books and Accounts are kept at *Lisbon*, and
 other Places of *Portugal*, by Millions, Thousands, and
 Hundred Rees; dividing and separating the Thousand
 from the Hundred by an @ with a Line cut through the
 Middle, as the Millions from the Thousands only by
 a Point, or Dot, as underneath.

5.279@560
 17.186@475
 6.573@349
 29.039@384

Portugal gives to

London, 1000 Rees, for 52*d.* and 80*d.* Sterling.

Holland, *Brabant*, *Hambourg*, &c. 1 Crusade of
 400 Rees, for 40 to 60 Groots.

Spain, between 180 and 200 Crusades, for 100 Du-
 cats of 375 Maravedi's.

France, between 500 and 650 Rees, for 1 Ecu of
 60 Sols *Tournois*.

Florence, between 600 and 750 Rees, for 1 Crown
 of 7½ Lires.

Genoa, between 600 and 750 Rees, for 1 Pezzo of
 5 Lires.

Leghorn, between 600 and 750 Rees, for 1 Pezzo
 of 6 Lires.

Note, When they exchange with *France*, it is by the
 way of *Amsterdam*, *Antwerp*, or *Hambourg*; and if
 this Country draws, or remits upon *Flanders*, or any
 of the *Low Countries*, it is done by the way of
Lisbon. The Exchanges practised at *Oporto*, and
 other Towns of this Kingdom, to foreign Coun-
 tries, are the same of those practised at *Lisbon*.

Portugal upon England, or London.

Portugal negotiates with *London* for 387½ Cru-
 sades, at 1000 Rees for 6½ Shillings Sterling; to know
 what Sum must be received in *London*.

Multiply the — 387½ Crusades
 By — 400 Rees,

The Product will be 1548500 Rees; which divided
 by 100 Rees, will produce 1548½ Thousands.

Multiply the 1548½ Thousands by 6½ Shillings,
 Price of the Exchange, and reduce the Shillings into
 Pounds Sterling; you'll have 503*l.* 5½ Shillings Ster-
 ling to receive in *London*.

Portugal upon Paris or Lyons.

Portugal negotiates with *Paris* or *Lyons* for 6930
 Crusades, at 660 Rees for 1 Ecu of 60 Sols *Tournois*;
 to know the Sum which must be received at *Paris* or
Lyons.

Reduce into Rees the 6930 Crusades,
 In multiplying them by 400 Rees;

The Product will be 2772000 Rees, to be divided
 by 660 Rees, Price Ch.

And you'll have to receive at *Paris* or *Lyons* 4200
 Ecu's of 60 Sols *Tournois*.

Portugal upon Florence.

Portugal negotiates with *Florence* for 937½ Crusades,
 at 750 Rees for 1 Crown of 7½ Lires; to know the
 Sum to be received at *Florence*.

Multiply the — 937½ Crusades
 By — 400 Rees,

The Product will be 375000 Rees, to be divided by
 750 Rees.

And you'll have 500 Crowns, of 7½ Lires, to re-
 ceive at *Florence*.

Portugal upon Genoa.

Portugal negotiates with *Genoa* for 1121½ Crusades,
 at 650 Rees for 1 Piafter of 5 Lires; to know what
 Sum must be received at *Genoa*.

Multiply the — 1121½ Crusades
 By — 400 Rees,

The Product will be 448500 Rees, to be divided by
 650 Rees.

And you'll have 690 Piafters, of 5 Lires, to receive
 at *Genoa*.

Portugal upon Leghorn.

Portugal negotiates with *Leghorn* for 200 Crusades,
 at 675 Rees for 1 Piafter of 6 Lires; to know what
 Sum must be received at *Leghorn*.

Multiply the 200 Crusades
 By — 400 Rees,

The Product will be 80000 Rees, to be divided by 675.
 You'll have 118½ Piafters to receive at *Leghorn*.

Portugal upon Amsterdam.

Portugal negotiates with *Amsterdam* for 1764 Cru-
 sades, at 51½ Groots for 1 Crusade; to know what
 Sum must be received at *Amsterdam*.

Multiply

Multiply the _____ 1764 Cruſades, of
400 Rees,
By the Price of the Exchange, at 51 $\frac{3}{4}$ Groot; ;
The Product will be _____ 9128 $\frac{1}{2}$ Groot.
Take the $\frac{1}{4}$, to have _____ 2282 Flor. 3 $\frac{1}{2}$ Sti-
vers Bank Money to receive at *Amſterdam*.

Having thus given an exact, and very particular De-
tail, of all the different *Exchanges* of the ſeveral King-
doms and States of *Europe*; the laſt Thing which falls
under our Conſideration, relating to that important
Subject, are, the *Orders*, *Commiſſions*, and *Arbitration*.

We underſtand by *Orders* and *Commiſſions*, a certain
Order, which Bankers, Merchants, and Dealers, ſend
their Correſpondents and Factors, to remit to any cer-
tain Place a certain Sum of Money, at a certain Price
of the Exchange; and then to value themſelves back
again, (as they call it) to draw upon ſome other Place,
at ſome certain Price, for the Value of the Sum re-
mitted: In Conſequence of which, a ſmall Allowance
of ſo much *per Cent.* is made them.

But as it happens that the Price of the Exchange
often varies, and falls and riſes, perhaps, twice in a
Day, but commonly every Poſt; it is at ſuch a Time
the Factor muſt conſider whether the Exchanges be
fallen at one of the Places mentioned in his Commiſ-
ſion, and riſen, perhaps, in another; he ought, there-
fore, in ſuch Caſes, to conſider, whether in perform-
ing the one Part of his Commiſſion, will be ſufficient
to compensate the Loſs for the other: For diſcovering
of which, ſeveral Operations muſt be perform'd, and
theſe, among the Exchanges, are call'd *Arbitrations*.

To perform ſuch Operations, it is requiſite for the
Practitioner to underſtand perfectly the certain and un-
certain Prices of the Exchanges; that is, what Places
give the uncertain, and what give ſome certain and
fix'd Price in Exchange with other Countries; as *Eng-
land* does to *Holland*, it always giving one Pound *Eng-
liſh* for an uncertain Number of Skillings and Groot
Dutch; and ſo, conſequently, *Holland* gives always the
uncertain to *England*.

All this will be juſtified by the following Propoſi-
tions, which will be reſolved by general and infallible
Rules.

Commission ſent to a Place where the certain is given.
Amſterdam, *Paris*, and *London*.

A of *Amſterdam*, orders *B* of *Paris* to remit, for his
Account, to *C* of *London*, 1000 Ecu's of 60 Sols, or
3 Livres *Tournois*, at 53 *d.* Sterling for 1 Ecu, and to
draw upon him at $\frac{1}{4}$ *per Cent.* at 91 Groot *per* Ecu;
but upon the Receipt of the Order he finds the Ex-
change of *Paris* upon *London* at 52 $\frac{1}{2}$ *d.* Sterling for
the Ecu: The Query is, what Price the Exchange of
Paris upon *Amſterdam* muſt be, to make the Value of
the Draught upon *Amſterdam* equal to the Remittance
to *London*; becauſe *Paris*, where the Commiſſion is
given, exchanges always at the Rate of the ſaid Ecu,
as well for *London* as for *Amſterdam*, which is the cer-
tain with Regard to *France*, and the uncertain with
Regard to *London* and *Amſterdam*.

Example.

53 *d.* Sterling, } Prices accord- } 52 $\frac{1}{2}$ Sterling, Price
91 Groot, } ing to Order, } found at the Time
of the Commiſſion
receiv'd.

Say, If 52 *d.* Sterling are equal to 91 Groot; how
many will be to 52 $\frac{1}{2}$ *d.* Sterling?

The Answer will be, 90 $\frac{1}{2}$ Groot for 1 Ecu, or
Crown.

If *A* of *Amſterdam*, orders *B* of *Paris* to remit to *C*
of *London* 1000 Crowns, at 53 *d.* Sterling *per* Crown,
and to draw upon him at 91 Groot for the ſaid
Crown; if in Execution of this Order *B* remits to *C*
of *London* at 52 $\frac{1}{2}$ *d.* Sterling, and draws upon *A* at
90 $\frac{1}{2}$ Groot; we aſk, what Advantage *A* receives at
London?

At 53 *d.* Sterling, he has at *London* 220 16 8
At 52 $\frac{1}{2}$ *d.* Sterling, he has but 218 15 0
Sterling;
Therefore at 53 *d.* it is more advantageous by 2 01 8

Commission ſent to a Place where they give the uncertain.
Paris, *Amſterdam*, and *London*.

D of *Paris*, orders *E* of *Amſterdam* to remit to him
2000 Crowns, at 94 Groot for 1 Crown, and to draw
his Advance, with his Proviſion, at $\frac{1}{4}$ *per Cent.* upon
F of *London*, at 34 S. 2 Gr. for 1 Pound Sterling;
but at the Time of the Reception of the Order the
Exchange of *Amſterdam* upon *Paris* is at 96 Groot;
the Query is, at what Price muſt be the Exchange of
Amſterdam upon *London*, that the Order may be execu-
ted with the ſame Advantage to the *Committer* of *Paris*.

24 — Groot, } Prices accord- } 96 Groot, Price of
34 S. 2 Groot, } ing to the } the Exchange found
Order, } at the Time the
Commission was re-
ceiv'd, 34 S. 2 Gr.

94 Gr. 410 Gr. 96 Groot.
The Product will be, 34 S. 10 $\frac{3}{4}$ Groot, or 418 $\frac{3}{4}$
Groot.

For as 94 Gr. are to 34 S. 2 Groot; ſo 96 Gr. are
to 34 S. 10 $\frac{3}{4}$ Groot; for in Proportion that the Ex-
change riſes in *London*, that of *Amſterdam* falls, which
makes a juſt Compensation, and conſequently an
Equality.

Commission ſent to a Place where the certain is given
to one of the Places where the Commiſſion is to be
executed, and the uncertain to the other Place.

Paris, *London*, and *Amſterdam*.

G of *Paris*, orders *H* of *London* to remit to him
200 Pounds Sterling, at 52 *d.* Sterling for 1 Ecu, or
Crown of 60 Sols *Tournois*, and to value himſelf upon
I of *Amſterdam* for his Advance and Proviſion at $\frac{1}{4}$ *per*
Cent. at 33 S. 9 $\frac{1}{2}$ Groot for 1 Pound Sterling; but
at the Time of the Reception of the Order the Ex-
change of *London* upon *Paris* is found at 53 $\frac{1}{2}$ *d.* Ster-
ling; we aſk, at what Rate muſt *London* draw upon
Amſterdam?

53 $\frac{1}{2}$ *d.* Ster- } Prices according } 53 $\frac{1}{2}$ *d.* Sterling,
ling, 33 S. } to the Order, } when the Com-
9 $\frac{1}{2}$ Groot, } miſſion was re-
ceiv'd.

Say, If 53 *d.* Sterl. are at 33 S. 9 $\frac{1}{2}$ Groot; at how
many will be 53 $\frac{1}{2}$ *d.* Sterl.

Multiply by 12 Groot, adding the
9 $\frac{1}{2}$ *d.*
The Product will be 405 $\frac{1}{2}$ Groot.
Multiply by 53 *d.* Sterling,

21491 $\frac{1}{2}$ *d.* Sterling, at 53 $\frac{1}{2}$ *d.*
for 1 Crown.

42983—Half *d.* to be divided
by 107 Half *d.*

The Answer will be, 33 S. 5 $\frac{7}{8}$ *d.* or 401 $\frac{7}{8}$ Gr.
for 1 *l.* Sterling.

Commission ſent to a Place where the certain is given.
Amſterdam, *Lyons*, *London*, and *Hambourg*.

K of *Amſterdam*, orders *L* of *Lyons* to remit 1000
Crowns, of 60 Sols *Tournois*, upon one of the three
Places abovemention'd, where he'll find more his Ad-
vantage, *viz.* to *Amſterdam*, *London*, or *Hambourg*;
informing him, at the ſame Time, that the Courſe of
Exchange is then,

Upon *London*, at 34 S. 6 Gr. for 1 Pound Sterling.

Upon *Hambourg*, at 33 S. common, for 1 Deakel.

L, to execute the Order of *K* of *Amſterdam*, finds
the Courſe of the Exchange, *viz.*

Upon *Amſterdam*, at 95 Gr.

Upon *London*, at 53 *d.* Sterling.

Upon *Hambourg*, at 3 $\frac{1}{4}$ Loſs upon the Bills.

We aſk, upon which of the aforeſaid Places it will
be more advantageous for *K* of *Amſterdam*?

9 S

Answer.

Answer, at $95\frac{1}{4}$ Gr. or at $47\frac{1}{8}$ S. Lubs for 1 Crown.
If 1 l. Sterling — 34 S. 6 Gr. — 4s. 5 d. Sterling.
If 240 d. Sterling are at 414 Gr. at how many will be 53 d. Sterling?

The Product will be $91\frac{1}{2}$, or $91\frac{7}{8}$ Gr.

To reduce the $3\frac{1}{4}$ per Cent. lost upon *Hambourg*, multiply the 33 S. Commons (of the Change of *Amsterdam* upon *Hambourg*) by 3, there will arise 99, from which must be taken off the $3\frac{1}{4}$ per Cent. there will remain $95\frac{1}{4}$ Gr. or $47\frac{1}{8}$ S. Lubs for 1 Crown.

Therefore it is more advantageous to remit from *Lyons* upon *Hambourg*, than from *London*, since K. of *Amsterdam* would receive at *Hambourg* $95\frac{1}{4}$ Gr. or $37\frac{1}{2}$ S. Lubs, for 1 Crown, when as upon *London* he would receive but $91\frac{1}{2}$ Gr. and upon *Amsterdam* but 95 Gr. and $1\frac{1}{2}$ Month later.

Proof.

If 1000 Crowns at 95 Gr. give at *Amsterdam* 2375 Flor. S. P.

If 1000 Crowns at $91\frac{1}{2}$ Gr. would give but 2285 Flor. 12 S. 8.

If 1000 Crowns at $95\frac{1}{4}$ Gr. or $47\frac{1}{8}$ S. Lubs, give at *Hambourg* 2676 Mar. 9 S. Lubs, or 1488 Deal. 9 S. Lubs.

2375 Flor. of *Amsterdam*.
20 S.

47500 S. to be divided by 33 S. the Product will be 1439 Deal. 12 S. $7\frac{3}{4}$ D. Lubs.

Amsterdam, London, Paris, and Antwerp.

M. of *Amsterdam* orders N. of *London* to remit to O. of *Paris* at 54 d. Sterling for 1 Crown, and to draw upon P. of *Antwerp* at $33\frac{1}{2}$ S. Gros. for 1 l. Sterling; but when N. receives the Order, the Change of *London* is upon *Paris* at $54\frac{1}{2}$ d. Sterling for the said Crown, what Price of the Exchange N. of *London* must draw to follow the Order?

Answer, at 33 S. $2\frac{3}{8}$, or $398\frac{1}{8}$ Gr.

Say, if 54 d. Sterling give $33\frac{1}{2}$ S. or 402 Gr. how many will give $54\frac{1}{2}$ d. Sterling?

54 d.	$54\frac{1}{2}$ d.
by 402 Gr.	2
21708	109 Divif.
by — 2	

43416 to be divided by 109, the Product is $398\frac{1}{8}$ Gr. or 33 S. $2\frac{3}{8}$ Gr.

Proof.

If M. of *Amsterdam* had ordered N. of *London* to remit to O. of *Paris* at 54 d. Sterling for 1 Crown, and to draw upon P. of *Antwerp* at 33 S. $2\frac{3}{8}$ Gr. for 1 l. Sterling; N. of *London* finding the Course of Exchange upon *Antwerp* at $33\frac{1}{2}$ S. Gros for the said Pound Sterling, what Price of Exchange must N. of *London* remit to O. of *Paris*, to follow precisely the Order of M. of *Amsterdam*?

Answer, at $33\frac{1}{2}$ S. Gros for 1 l. Sterling.

Say, if $54\frac{1}{2}$ d. Ster. give $398\frac{1}{8}$ Gr. or 33 S. $2\frac{3}{8}$ Gr. how much will 54 d. Sterling give?

$398\frac{1}{8}$ Gr.
 $54\frac{1}{2}$ d. Ster.

21708, to be divided by 54 d. the Product 402 d. or 33 S. Gr.

Proof.

1000 Crowns at 54 d. Ster.	1000 Crowns at $54\frac{1}{2}$ d. Ster.
54000 d.	54500 d.
make 225 l. Ster. at 402 Gr.	make 227 l. 1 s. 8 d. Ster. at $398\frac{1}{8}$ Gr.
Product 90450 Gr.	Product 90450 Gr.

the $\frac{1}{4}$ 2261 Flor. 5 S. the $\frac{1}{4}$ 2261 Flor. 5 S.

London, Hambourg, and Amsterdam.

London negotiates with *Hambourg* at 34 s. 6 d. per

Pound Sterling, and with *Amsterdam* at 35 s. 1 d. what must be the Exchange between *Hambourg* and *Amsterdam*?

Say, if 34 s. 6 d. *Hamb.* — 35 s. 1 d. *Amst.* — 32 s. *Hamb.*

12	12	
414	421	414)13472(32 s. <i>Amst.</i>
—	32	per Dollar
	842	1052 of 62 S.
	1263	Lubs.
	—	$3\frac{1}{4}$ or $\frac{1}{2}$
	13472	

Amsterdam, London, and Hambourg.

Amsterdam negotiates with *London* at 35 s. 1 d. per Pound Sterling, and with *Hambourg* at $32\frac{1}{2}$ Stivers per Dollar of 32 S. Lubs, what must be the Exchange between *London* and *Hambourg*?

If 32 Stiv. $\frac{1}{2}$ — 32 S. Lubs. — 35 s. 1 d.

12	32
309	70 2
—	1052 6
	—
	1122 8

Remains 204

12 multip. and take in 8,

39|0)1347|2(34 s. 6 d. per Pound Sterling.

177

212

12

39|0)254|4(6 d.

20

Hambourg, London, and Amsterdam.

Hambourg remits to *London* at 34 s. 6 d. per Pound Sterling, and to *Amsterdam* at 32 S. $\frac{1}{2}$ per Dollar Lubs, at what Rate must be the Exchange between *London* and *Amsterdam*?

If 32 S. *Hamb.* — $32\frac{1}{2}$ *Amst.* — 34 s. 6 d. *Hambourg.*

32 s.	32 s.	
69 0	1135 0	32)1122 8(35 s. 1 d. <i>Amst.</i>
17 3	17 3	per Pound
1 5	1 5	Sterling.
—	—	
162	162	
—	—	
2	2	
12	12	
—	—	
32)32(1 d.		

London, Amsterdam, and Venice.

London negotiates with *Amsterdam* at 35 S. per Pound Sterling, and to *Venice* at 52 d. Sterling per Ducat Banco, what must be the Exchange between *Amsterdam* and *Venice*?

If 20 s. Sterling — 35 S. *Amst.* — 52 s. Sterling.

Or thus, 20 — 52 — 35

35
260
156
2 0)182 0

Answer 91 d. *Amst.* per Ducat Banco.

London, Antwerp, and Leghorn.

London negotiates with *Antwerp* at 35 S. per Pound Sterling, and to *Leghorn* at 54 d. per Pezzo, what must be

be the Exchange between *Antwerp* and *Leghorn*?
If 20s. Sterl. — 35s. *Amst.* — 54d. Sterl.
Or thus,

$$\begin{array}{r} 20 \text{ — } 54 \text{ — } 35 \\ \quad \quad 35 \\ \hline \quad \quad 270 \\ \quad 162 \\ \hline 2)1890 \end{array}$$

Answer. 94½ *Amst.* per Pezzo of *Leghorn*.

London, Amsterdam, and Lyons.

London negotiates with *Amsterdam* at 34s. 8d. per Pound Sterling, and with *Lyons* at 32½d. per Crown *Tournois*; at what Rate will be the Exchange between *Amsterdam* and *Lyons*?

If 20s. Sterl. — 34s. 8d. *Amst.* — 0s. 32d. Sterl.
Or thus,

$$\begin{array}{r} 20 \text{ — } 32\frac{1}{2} \text{ — } 34 \text{ } 08 \\ \quad \quad \quad 32\frac{1}{2} \\ \hline \quad \quad \quad 69 \text{ } 04 \\ \quad 1040 \text{ } 00 \\ \quad \quad 17 \text{ } 04 \\ \hline 2)1112 \text{ } 6 \text{ } 08 \end{array}$$

Answer. 56½ per Ecu.

Amsterdam, Antwerp, and Lisbon.

Amsterdam draws upon *Antwerp* 1000 Livres Gros; at 1½ per Cent. Advance, payable at 18 Weeks Date, for which Draught *Amsterdam* receives 6105 Florins, whereof, after 1½ Livres Gros, or 9 Florins have been deducted for Brokerage, there remain 6096 Florins, and *Antwerp* is order'd to draw upon *Lisbon*, when the Sum will be due, 4630 Crusades, 15s. 5d. at 52 Gr. per Crusade; and afterwards *Amsterdam* remits to *Lisbon* 4646 Crusades, at 52½ Gr. per Crusade, for its Provision; we ask the Profit or Loss of *Amsterdam*.

Answer. 1 Flor. 19½ S. Loss per Cent.

Proof.

1000 Liv. Gros Dr.	1000 L. Gr.
At 1½ per Cent. Adv.	3½ for Prov. <i>Ant.</i>
1017½ Liv. Gr.	1003½ Liv. Gr.
Deducted 1½ for Brok.	By 240 Gr.
1016 Liv. Gr.	240800 Gr. to be divi-
By 6 Flor.	(ded by 52.

6096 Flor.

Divide the 240800 Gros by the 52 of the Price of Exchange of *Antwerp* upon *Lisbon* for 1 X; the Product will be 4630 Crusades 15s. 5d. and a little less.

$$\begin{array}{r} 15 \text{ — } 8 \text{ — } 7 \text{ for Provif.} \\ \quad \quad \quad \text{(of } \textit{Lisbon}. \end{array}$$

$$\begin{array}{r} 4646 \text{ Crusad. 4 S.} \\ \text{At } 53\frac{1}{2} \text{ Gr.} \end{array}$$

$$24857 \text{ } 2 \text{ } d$$

The ¼ 6214 Flor. 6 S.

6096 Flor. Sols, to be deducted (from the Draught of *Amst.*

It remains 118 Flor. 6 S. Loss.

If 6000 Flor. lose 118 Flor. 6 S. how many will lose 100 Flor.

Answer. 1 Flor. 19½ S. Loss per Cent.

If 6 Months lose 1 Flor. 19½ S. how many will 12 Months?

Answer. 3 Flor. 18½ Sols.

Bordeaux, Amsterdam, and Frankfort.

B of *Bordeaux*, orders *A* of *Amsterdam* to draw for him at 90 Gr. per Ecu, and to remit to *C* of *Frankfort* at 82 Groots per Florin of 60 Cruitzers of Exchange, and no lower. *A* finds the Change upon

Bordeaux at 92 Groots, and upon *Frankfort* at 84 Groots; we ask if *A*, who draws upon *B* at the Courfe of the Exchange found, and remits to *Frankfort*, accomplishes the Order?

Answer. *Frankfort* receives ¼ per Cent. less than the Order.

$$\begin{array}{r} \text{Order } 90 \text{ Gr.} \\ \quad \quad \quad \times \quad 92 \text{ Gr. Courfe,} \\ \quad \quad \quad 82 \text{ Gr.} \quad \quad 84 \text{ Gr.} \end{array}$$

(the Order.

Order 7560 Gr. 7544 Courfe, which accomplishes Multiply 90 by 84, and afterwards 82 by 92.

If *B* pays 1 Ecu of 60 Sols, *A* receives 90 Groots, and at *Frankfort* 1¼ Flor. Divide 90 by 82, there will be 1¼ Flor. according to Order.

If *B* pays 1 Ecu of 60 Sols, *A* receives 92 Groots, and *Frankfort* 1¼ Flor. Divide 92 by 84, there will be 1¼ Flor. according to the Exchange.

$$\begin{array}{r} \text{Order } 1\frac{1}{4} \text{ Flor.} \\ \quad \quad \quad \times \quad \text{Courfe } 1\frac{1}{4} \text{ Flor.} \\ \quad \quad \quad 100 \text{ Flor.} \end{array}$$

There comes 99½.

¼ per Cent.

less than the Order.

Lyons, Venice, and Amsterdam.

G of *Lyons*, draws upon *H* of *Venice* 2000 Ecu's of 60 Sols, at the Rate of 100 Crowns for 102 Ducats, with Order to *H* to draw the same Sum, when due, the Provision included, upon *I* of *Amsterdam*, at 91 Groots for 1 Ducat Banco; and *I* of *Amsterdam* draws upon *G* of *Lyons* at 89 Groots per Ecu; we ask the Profit or Loss for *Lyons*.

Answer. 102 Ecu's, 18 S. 2½d.

2000 Ecu's	2040 Ducats Banco
At 102 Duc. for 100 Ecu's	6½ Provision

$$2040 \text{ } 00$$

$$2040 \text{ Ducats Banco}$$

$$\begin{array}{r} \text{Divide } 187159 \text{ Gr. by} \\ 89 \text{ Gr.} \end{array}$$

$$\begin{array}{r} \text{Product } 2102 \text{ Ecu's } 18 \text{ S. } 2\frac{3}{4} \text{ d.} \\ \text{Drawn } 2000 \text{ Ecu's} \end{array}$$

$$\begin{array}{r} \text{Profit } 102 \text{ Ecu's } 18 \text{ S. } 2\frac{3}{4} \text{ d.} \\ \quad \quad \quad 2\frac{3}{4} \text{ d.} \end{array}$$

$$\begin{array}{r} \text{By } 40 \text{ Gr.} \\ 187159 \text{ Gr. to be divided} \end{array}$$

London, Lyons, Cadiz, and Amsterdam.

O of *London*, orders *P* of *Lyons* to draw upon him, and to remit the Value to *Q* of *Cadiz*, and *Q* of *Cadiz* to *R* of *Amsterdam*; *P* of *Lyons* draws upon *O* of *London* at 54½d. Sterling for 1 Ecu, and remits to *Q* of *Cadiz* at 270 Maravedi's per Ecu, and *Q* remits to *R* at 120 Groots per Ducat of 375 Maravedi's; and, lastly, *O* of *London* draws upon *R* of *Amsterdam*, so that he loses 5 Pounds, 16s. 5¼d. Sterling per Cent. (without reckoning the Charges and Provision, which are not included here) we ask, at what Price of Exchange *O* of *London* has drawn upon *R* of *Amsterdam*.

Answer. At 33½ S. Gros, for 1 Pound Sterling.

Proof.

100 Ecu's	100 Ecu's 33½ Skillin. Gros
At 54½d. Sterl.	At 270 Marav. 12 Groots

$$\begin{array}{r} 5450 \text{ d. Sterl. to} \\ \text{be divided by} \\ 240 \text{ d. — } 22 \text{ l.} \\ 14 \text{ s. } 2 \text{ d. Sterl.} \end{array}$$

$$\begin{array}{r} 27000 \text{ Mar. } 404 \text{ Groots} \\ \text{By } 375 \text{ — } 72 \text{ Ducats} \\ \text{At — } 120 \text{ Groots} \end{array}$$

$$8640 \text{ Groots}$$

$$\text{To be divided by } 404 \text{ d. — } 21 \text{ l. } 7 \text{ s. } 8\frac{1}{2} \text{ d. Sterl.}$$

$$\begin{array}{r} 22 \text{ l. } 14 \text{ s. } 2 \text{ d. Sterl.} \\ 21 \text{ l. } 07 \text{ s. } 8\frac{1}{2} \text{ d. St.} \end{array}$$

$$1 \text{ l. } 06 \text{ s. } 5\frac{1}{2} \text{ d. St.}$$

l. s. d.	l. s. d.	l.
If 22 14 2 lose 1 6 $5\frac{1}{10}$ how many 100 Sterl.		
240d.	240d.	317 $\frac{3}{10}$ d.
5450d. St.	317 $\frac{3}{10}$ d. Sterl.	31732 $\frac{6}{10}$ d. S.
Divif.	Multiplic.	to be divided.
There comes 5 l. 16 s. 5 $\frac{4}{10}$ $\frac{7}{10}$ d. Sterl. Loss per 100.		

Dantzick, Amsterdam, and Paris.

M of Dantzick, orders N of Amsterdam to remit to O of Paris at 90 Groots per Ecu, and to draw upon him at 268 Polifb Grofles per L. Gros, or at what other Price he'll think fit, provided it does not prove difadvantagious for M of Dantzick; N of Amsterdam can't remit but at 91 Groots per 1 Ecu: We ask, at how many N must draw upon M, to follow the Order?

90 Gr. ————— 268 Gr. ————— 91 $\frac{1}{2}$ Gr.

90	2
24120	183 Divif.
2	

48240 to be divided by 183.

The Product is, 263 $\frac{3}{4}$ Polifb Grofles.

Note, That having fo often mention'd, throughout this whole Treatise of Exchange, the Prices of Exchange certain, and uncertain; it is very proper we should mark the Difference between the certain and uncertain.

By the Word *certain*, we understand a Price fix'd and limited, and which is not subject to Variation, i. e. a certain determinate Quantity; as are the French Crowns of 60 Sols, or 3 Livres *Tournois*; the Spanish Ducats of 375 Maravedi's, (or 11 Rials 1 Maravedi) the Ducats Banco of 24 Grofles, or 6 Livres 4 Soldi of Venice; the Crusades of 400 Rees of Portugal; the Florins, or Gouldens, of 65 Cruitzers of Exchange of Frankfort, or the Florins of 60 Cruitzers of Exchange of the said Place; or the Dealders of 32 Sols, or of 2 Marks 16 Sols Lubs of Hambourg; the Pound Sterling of England; the Livre Gros of 6 Florins of Holland, Brabant, Flanders, and Zeland.

By the Term *uncertain*, we must understand an undeterminate and variable Quantity of Deniers, or other Sort of Money, given in one Place, to receive the Equivalent at another; as are the Exchanges made from Amsterdam, and other Places of Holland, Antwerp, Brussels, and other Parts of Brabant, on the foreign Places with which they keep a Correspondence.

Note, also, That there are Places which give sometimes the *certain*, and sometimes the *uncertain*, which is done with Regard to the other Places they correspond with. As for Example, the Exchanges of London upon Amsterdam, made at the Rate of 1 Pound Sterling, to receive at Amsterdam, &c. Scallins, Groets, &c. and those of London upon France, Spain, and Italy, are made at an *uncertain* Price, by giving the Pence Sterling for 1 Ecu, 1 Ducat, &c. so that England has the *certain* with Regard to Holland, Brabant, &c. and the *uncertain* with Regard to France, Spain, Italy, &c.

Having thus exactly treated of Commerce by Exchange, and enter'd into a very particular Detail of all the Branches thereof, we must pass to what is called in Commerce, Discount, or Rebate.

REBATE, in Commerce, is a Term much used at Amsterdam for a Discount or Abatement in the Price of certain Commodities, when the Buyer advances the Sum in Hand, for which he might have taken Time.

Rebate (in England is usually call'd *prompt Payment*) is estimated by Months, and is only allow'd for certain Kinds of Merchandizes, which, according to the Custom of Amsterdam, are, German Wools, which are sold at 15 Months Rebate; Ashes, and Pot-ashes, at 18 Months Rebate; Italian Silks, at 33 Months Re-

bate; Sugars of Brazil, at 18 Months Rebate; and Spanish Wool, at 21 Months Rebate.

That is, these Commodities are sold for ready Money, only deducting, or *rebating* the Interest of the Money, which ought not to be paid till the End of 15, 18, &c. Months.

This Interest, call'd Rebate, is commonly regulated on the Footing of 8 per Cent. per Annum.

The Reason of this Expedient, is, that the Merchants, having not always wherewithal to pay for their Goods in Hand, by means of the Rebatement, such as have, will find their Account in it; and such as have not, will be engaged to discharge themselves as soon as possible, in Hopes of the Discount.

This Discount, or Rebate, is made in two different Manners at Amsterdam, and other Places of Holland.

The first (which is neither very just, nor reasonable) is, to discount or rebate upon certain Merchandizes sold or bought for ready Money, (which ready Money is to be paid in 6 Weeks) in such a Manner, that there is Profit for the one or the other of the Parties, who, satisfied with drawing the Exchange of the Sum which is to be discounted, and having subtracted the Exchange, what remains, say they, is the neat Sum to be paid; because if the Seller discount to the Buyer the Exchange of the whole Sum, he discounts the Exchange of the Exchange which he does not receive, and thus he loses; since it must be considered, that the Sum is composed of the Principal and Interest: Therefore the Term which represents the Principal, must be added with that of the Exchange, or Interest.

The second Manner of Rebate (which is more just) is 2, 3, 4, 5, 10, 20, and as far as 30 on an hundred, i. e. that 102, loses 2; 103, 3; and thus of the other Sums in Proportion; which is reckoned at the Rate of 8 per Cent. per Annum, reckoning 1 for an hundred for the Discount of 6 Weeks, or 1 Month and a Half; 2 for an hundred for 3 Months; and thus of the other Sums and Times.

If, for Example, it be wanted to know the Rebate of 21 Months; a Third must be taken off 21, which is 7, there will remain 14 for an hundred for the Rebate of 21 Months, at the Rate of 8 per Cent. per Annum. If, further, we want to know the Rebate of 24 Months, which are 2 Years; we'll take off, likewise, a Third from 24, which is 8, there will remain 16 for an hundred for the Discount of 24 Months; which shews, that it is but at the Rate of 8 per Cent. per Annum. If, on the contrary, we want to know how many Months of Rebate give 14 or 16 per Cent. we must add to the said Numbers the Half of the same Numbers, as 7 to 14, and 8 to 16, and we'll have 21 and 24 Months Rebate, as above.

The Facility of discounting is the most solid Profit a Merchant Retailer can make; because a Merchandize which will have cost, for Example, 100 Florins, or 130 Livres, on Condition of 8 per Cent. Rebate for one Year, becomes, thereby, cheaper, which amounts to considerable Sums, when the Retail is great; so that he who is deprived of the Means of discounting, can't afford it so cheap as a Merchant who has Money, and can discount; as is plainly seen by the following Example.

We ask the Rebate at 8 per Cent. (according to the second Method of discounting) of 4500 Florins, or Livres.

If 100 Flo. lose 8 Flo. how many will lose 4500?

There will be 333 $\frac{1}{3}$ Flo. for the Rebate.

Take off the 333 $\frac{1}{3}$, there will remain 4166 $\frac{2}{3}$ to pay.

According to this Method, the Seller should receive 4166 $\frac{2}{3}$ Flor.

But perhaps our Pupil Merchant will be glad, one Time or other, to trade in Company, which is an Association of several Merchants, who unite in one common Interest, and contribute, by their Stock, Counsels, and Study, to the setting on Foot, or supporting some lucrative Establishment.

Though Company, and Society, or Fellowship, be, in Effect, the same Thing; yet Custom has made a Difference between them; Society, or Partnership, being

being understood of two or three Dealers, or not many more; and Company of a great Number. A second Difference between Companies and Societies, is, that the first, especially when they have exclusive Privileges, can't be established without the Concession of the Prince, and need Letters Patents, Charters, &c. whereas for the latter, it is sufficient to have the Consent of the Members fixed and certified by Acts and Contracts, and authorized by Laws. In this Sort of Company, or Association, each Partner furnishes his *Quota*, to have each their Part of $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, &c. according to the Agreement enter'd into among them; and to each Associate in particular is deliver'd an Account in Company for his Portion, according to the Contract or Act of the Society.

But the Word *Company* is more particularly appropriated to those grand Associations set on Foot for the Commerce of the remote Parts of the World; as the *English* and *Dutch East-India Company*, *South-Sea Company*, *Royal Company* of both the *Indies* in *France*, &c. the Rise and Establishment whereof we shall here set before our Pupils, beginning with the *English Companies*.

The most considerable Companies in *England*, are, the *East-India Company*, *Royal African Company*, *Hamburgh Company*, *Russia Company*, *North-Sea Company*, *Turkey Company*, *South-Sea Company*, *Harborough Company*, and the *Scotch Darien Company*.

The *English EAST-INDIA COMPANY* was formed towards the latter End of the Reign of Queen *Elizabeth*, their Charter being dated in 1599. Their first Fleet, sent out in 1600, brought back so rich a Cargo, that in a few Years they numbered 20 Ships. King *James I.* to shew how much he had its Interest at Heart, sent several Embassies to the Great Mogul, Kings of *Persia*, *Japan*, and other Princes, to make Treaties of Commerce in his Name, and that of the Company; some of which subsist still. The King of *Persia*, in particular, granted the Company several extraordinary Favours, in Recompence for the Service the *English* had done him, in assisting him to expel the *Portuguese* from *Ormuz*, who, by means of their Lodgment there, engrossed the whole Commerce of the *Persian* Gulph.

But the greatest Favours the Company receiv'd, were from King *Charles II.* who, by a Charter in 1669, granted them the Port and Island of *Bombay*, with all the Rights thereof, as surrendered to him by the *Portuguese*; only reserving to himself the Sovereignty and Homage thereof, with a yearly Acknowledgment of 10*l.* *per Annum* in Gold. By another Charter, in 1674, he granted them, in like Manner, the Island of *St. Helena*, belonging to him by Right of Conquest, from the *Dutch*, who had before taken it from the *English*. By a third Charter, he granted them the Power to erect a Court of Judicature, composed of a Lawyer and two Merchants, in all their Places, Settlements, Factories, &c. to judge of Seizures, and all marine Disputes; as also, about Bargains, Exchange, &c. and even of all Crimes committed on the high Seas, or in the Countries or Territories of the Company, in *Asia*, *Africa*, and *America*; the whole, however, agreeable to the Usages and Customs of Merchants, and the Laws of *England*.

In 1662, the same Prince granted the Company a Charter, which contained a Confirmation of the ancient ones of King *James I.* and Queen *Elizabeth*; or rather a new Charter, granting them Abundance of Privileges which they had not before enjoyed: This Charter is properly the Basis of the Company, and that whereon are founded all the Rights, and the Policy of the new Company, afterwards established in 1698. It consists of twenty-eight Articles: In the first the King erects the Company into a Corporation, or Body Politick, under the Name of the *Governor and Company of Merchants trading to the East-Indies*. The third granting them a common Seal: The fourth a Governor, and twenty-four Directors, or Assistants chosen out of the Proprietors, or Stock-holders: The sixth, seventh, eighth, and ninth, regulate the Order

and Policy of the Company, settle the Officers, Manner of Election, Authority, general Meetings, &c. The tenth, fixes the Extant of the Grant; permits all those of the Company, their Children of 21 Years of Age, their Apprentices, Factors, and Domesticks, to trade to the *Indies*, and any part of *Asia*, *Africa*, and *America*, beyond the Cape of *Good Hope*, and the Streights of *Magellan*: The eleventh grants them Power to make By-Laws to be observed by the Officers, Factors, &c. and to enjoin Penalties, provided those Laws be not contrary to the standing Laws of *England*: By the twelfth, the Payment of the Duties, Customs, &c. of Goods, exported or imported is delayed; one half of it for half a Year, the other half a whole one: Providing withal, that if the Goods thus imported, be exported again in the Space of thirteen Months, no Duties shall be paid for such Export, provided it be done on board *English* Vessels: The thirteenth Article grants them a Power of exporting Foreign Gold for their Service abroad, and even *English* Gold coined in the *Tower*; provided the Sum do not exceed 50,000 *l. Sterling* at a Voyage: By the fourteenth, and fifteenth, they are allowed six large Ships, and six Pinks, to pass freely through all the Limits of their Grant, without the King being able to lay any Embargo on them on any Occasion: The sixteenth, grants them an exclusive Privilege; to have the sole Right of Dealing to the *Indies*: Ordering the Seizure and Confiscation of all Vessels, &c. which shall interfere: The nineteenth, obliges them to bring at least as much Gold and Silver into the Kingdom, as they carry out each Voyage: The twenty-first, fixes the Sum in the capital Stock necessary to have a Vote in the Meetings, at 500 *l. Sterling*: allowing however, several of those who have less, to join several together to form a Voice: Lastly, the twenty-sixth allows them to send Vessels of War, and even to make Peace and War with all the Nations not Christian, in the Extent of their Grant.

All these four Charters of King *Charles II.* were confirmed by King *James II.* especially the last, which was enforced with new Sanctions, particularly the Article of Exclusion; which in the Time of King *Charles* had been but little regarded, but was now enforced with such rigorous Prohibitions, that all Interlopers seemed for ever excluded.

The Shares or Subscriptions of the Company, were originally only of 50 *l. Sterling*: But the Directors having a considerable Dividend to make in 1676, it was agreed to join the Profit to the Original, instead of withdrawing it; and thus the Shares were doubled, and became of 100 *l. Sterling*.

The Company had from time to time undergone great Losses; first in 1680, by the Loss of *Bantam*, out of which they were driven, and their Magazines plundered by the *Dutch*, under Pretence of assisting Sultan *Agui* against Sultan *Agan*, his Father. Secondly, in 1682, when the great Number of Interlopers, to whom King *Charles II.* too easily granted Permissions, lowered their Shares *Cent. per Cent.* Thirdly, by the War which the Company maintained in the *Indies* against the Great Mogul; wherein it was obliged to abandon the Factory of *Surat*, and to retire to *Bombay*. But still she repaired her Stock, and supported the Reputation of her Commerce, till the Revolution which happened soon after; when the War, and the incredible Losses the Company sustained by the *French* Privateers, &c. put it into so desperate a Condition, that appearing scarce possible to be supported, a new one was erected.

The Charter of the new *East-India Company* was of the Year 1698. Its Stock was so considerable, and the Subscriptions so very ready, that in two Years Time, the Company had 40 Vessels equipped in its Service; which was double of what the old one ever had; and sent to the *Indies* (*Communibus Annis*) a Million *Sterling* in Silver; whereas the former had never sent above 500,000 *l.* After the two Companies had subsisted a few Years in a separate State, Means were contrived to unite them, which was effected in 1702, when a new Charter

Charter of Union was granted them, under the Name of the *United Company of the Merchants of England trading to the East-Indies*: Which being since expired, another Charter with new Powers was granted them in 1730.

The Cargo which the *Company* sends to the *East-Indies*, is chiefly Silver, Bullion, and Pieces of Eight; with Cloth, either Scarlet or Blue: They also send some Iron, and Lead.

The Returns from the *Indies* are chiefly Silks, both raw and manufactured, Cottons, Callicoes, Muslins, Drugs; Tea, Coffee, China-Ware, Rice, Sago, Redwood, Salt-petre, Pepper, Carmania Wool, Indigo, &c.

For the Economy and Policy of the *United Company*; all Persons without Exception, are admitted Members of it, native and Foreigners, Men and Women, with this Circumstance, that 500 *l.* in the Stock of the *Company* gives the Owner a Vote in the general Courts, and 2000 *l.* qualifies him to be chosen a Director. The Directors are twenty-four in Number, including the Chairman and Deputy Chairman, but may be re-elected for four Years successively. They have a Salary of 150 *l.* per *Ann.* and the Chairman of 200 *l.* The Meetings or Courts of Directors, are to be held at least once a Week, but are commonly summoned as Occasions require.

Out of the Body of Directors are chosen divers Committees, who have the peculiar Inspection of certain Branches of the *Company's* Business: As the Committee of Correspondence, Committee of Buying, Committee of Treasury, Committee of Warehouses, Committee of Shipping, Committee of Accompts, Committee of private Trade, Committee of House, and Committee to prevent the Growth of private Trade.

Other Officers of the *Company* are—a Secretary, an Assistant with six Clerks; two Cashiers, with five Clerks; a chief Accomptant with three Assistants, and twenty-two Clerks; a head Accomptant of the freight Accompts, with three Clerks; a Paymaster, with two Assistants, and one Clerk; to which may be added a Surveyor of Ships and two Assistants; a Ship-husband for receiving the *Company's* Goods at the Water-side, with an Assistant, and three Elders, a Solicitor for Law Affairs, besides Warehouse-keepers, Elders, and Labourers employed in the several Warehouses.

The Warehouses or Magazines of the *Company* are—that for *Bengal* Goods, which is managed by a Warehouse-keeper, and his Assistant, with three Elders; under whom are a Number of Porters, employed at daily Wages. *St. Helen's* Warehouse for Coast and *Surat* Goods, in which are two Warehouse-keepers, and four Elders, besides Labourers. The Drugs Warehouse for Drugs and China Wares. Pepper Warehouse—Lastly, the private Trade Warehouse, all officered much like the first.

The *Company* has no Ships of its own, except few small Crafts used in the *Indies*: The rest, whereby their Commerce is carried on, belong to other Persons who build and let them out on Freight to the *Company* for each Voyage, according to the Terms of a Charter-party agreed on. By the By-laws of the *Company* no Vessels are to be hired, wherein any Director is concerned, directly or indirectly, either as Owner or Part-owner: A Regulation which, it is said, is not strictly observed.

No Persons are allowed to have any private Trade, except the *Company's* Officers and Seamen sent to *India* on board their Ships, who are licensed to carry out and bring back Commodities to a certain Value, greater or less according to their Rank: But at their Return their Cargoes are to be consigned to the *Company*, and sold by them at their next Sale: The *Jews* also, and other Dealers in Diamonds, are allowed to trade for themselves by the *Company's* Ships, on allowing so much per Cent. to the *Company* for Freight.

The *Company* has three principal Settlements, viz. *Fort William* in *Bengal*; *Fort St. George* on the Coast of *Coromandel*; and the Island of *Bombay*; each of which has several subordinate Factories.

The Factories dependant on *Fort William*, are *Cafimbuzar*, *Pátua*, *Dacca*, *Ballasore* and *Jugdea*. Those on *Fort St. George*, are *Fort Marlborough*, *Fort St. David*, *Vizagapatam*, *Ingeram*, and *Madipollam*. Those on the Island of *Bombay*, are *Ganbroon*, *Surat*, *Anjingo*, and *Tellicherry*.

The ROYAL AFRICAN COMPANY, established for the Commerce of the Coasts of *Guinea*, is governed much like that of the *East-Indies*; its Privilege is exclusive: It sends out, yearly, ten or a dozen Ships of about 150 Ton, loaden with old and new Draperies, Iron Works, Scissars, Knives, Muskets, Cottons, and other less considerable Merchandizes. The Returns are in Gold-dust, Elephants Teeth, Wax, and Leathers: But the best Article of its Commerce is the Negroes, which it sends to *Jamaica*, *Barbadoes*, and other *English* Isles in *America*; frequently even to the Ports of *New Spain*.

The first Establishment of this *Company*, was by a Charter granted in 1661, in Favour of the Duke of *York*, afterwards King *James II.* securing to him the Commerce of all the Country, Coasts, Islands, &c. belonging to the Crown of *England*, or not possessed by any Christian Prince; from Cape *Blome* in 20 Deg. North Lat. to the Cape of *Good Hope* in 34 Deg. 30 Min. South Lat. The Charter was soon after returned into the King's Hand by the Duke, and revoked by Consent of the Parties associated with him in the Enterprize; and a new Charter granted in 1663, with ampler Privileges than the former. The principal Adventurers here, were Queen *Katherine* of *Portugal*, Queen *Mary* of *France*, the Duke of *York*, *Henrietta Maria*, *Duchess* of *Orleans*, Prince *Rupert*; in brief, the whole Court came into it. The other Adventurers, i. e. those who were to be charged with the Management of Affairs, were chosen from among the wealthiest and ablest Merchants, especially those who had already dealt to those Countries. By this Charter the Grant was enlarged, and the *Company* put in Possession of all the Countries, &c. between the Port of *Sally* in *S. Barbary* to the Cape of *Good Hope* for a thousand Years; only reserving to the Crown the Homage thereof, with the Acknowledgment of two Elephants to be presented the King or his Successors, every Time any of them should set Foot within the Countries and Colonies in their Grant.

The Privileges granted by the Charter are, first, that the *Company* shall be a Corporation, or Body Politick; shall have a Common Seal bearing on one Side an Elephant, supported by two Negroes; on the other the King's Portrait. That the Governor with his Deputy, and seven of the twenty-four Assistants, be authorized to take on them the Direction of Affairs; that they may hold Courts, make Laws, inflict Punishments, &c. provided, still, they be equitable, and consistent with the Laws of *England*. That the Adventurers may transfer their Stock at Pleasure; provided the transferring be made in open Court and be registered: That they may equip and send out what Vessels they please, for Commerce or War; but that they pay the Duties and Customs. That no Vessels but those of the *Company*, and those authorized by it, shall traffick within the Limits of its Grant, on pain of Confiscation: That the *Company* may make War, in Defence of its Colonies, against Invaders, &c. that it have the Benefit of all the Mines in its Territories; the King only reserving to himself two Thirds of the Gold Mines, upon bearing two Thirds of the Expence. Lastly, that the King reserves for himself and his Successors, the Right of intervening, and being admitted at any Time a Sharer in the Stock, upon contributing a proportionable Sum to the rest.

This Charter was confirmed by new Letters Patent in 1673; followed by a Proclamation, enforcing the Observance of the Article of Exclusion; but neither Charter nor Proclamation being able to secure them from Interlopers, they had Recourse to the Protection of King *James II.* who had been twice of the Number of Merchants Adventurers; of whom they obtained a most severe Declaration in their Behalf, in the Year 1685.

On this Foot the *Company* has stood ever since, till the Year 1720; when a new *African Company* being formed by the Duke of *Chandois* and others; and a Charter purchased at the Expence of 250,000 *l. Sterling*; the two Companies soon became united.

The *HAMBURGH COMPANY* is the oldest trading Establishment in *England*, though not always known by that Name, nor restrained to those narrow Bounds; under which it is now confined. It was first called the *Company of Merchants trading to Calais, Holland, Zealand, Brabant, and Flanders*: Then it acquired the general Title of *Merchant Adventurers of England*; as being composed of all the Merchants trading to the *Low Countries*, the *Baltick*, and the *German Ocean*. Lastly, it was called the *Company of Merchant Adventurers of England trading to Hamburg*.

This *Company*, as well as others in *England* built on its Model, is very different from those abovementioned; and differs widely from the ordinary Plan and System of such Societies. In effect, this is not a Society of Dealers, each furnishing a Part of the Sum to constitute the capital Stock of the *Company*; but a mere Association, or Body of Merchants, who have nothing in common but the Grant and Privilege of trading to *Hamburg*, and some other Cities of *Germany*; each managing his own Commerce, and on his own Bottom; only observing a certain Discipline, and some Regulations which none but the *Company* can establish or change.

The first Charter, whereby the *Hamburg Company* was established, was in 1406, under the Reign of King *Henry IV*; it was afterwards confirm'd, and augmented with divers Privileges, by many of his Successors; among the rest, by *Henry V*, in 1413; *Henry VI*, in 1422; *Henry VII*, in 1493, 1505, and 1506; *Henry VIII*, in 1509, 1517, and 1531; *Edward VI*, in 1547; *Queen Mary*, in 1553; *Elizabeth*, in 1564, and 1586; *James I*, in 1605; and *Charles II*, in 1661. But of all these Charters, there are properly none but those of *Henry IV*, *Henry VII*, *Elizabeth*, *James*, and *Charles*, that are of any Importance, or that give the *Company* any Thing new; the rest being only simple Confirmations.

Before the Charter of *Henry IV*, all the *English* Merchants who trafficked out of the Realm, were left to their own Discretion, and managed Affairs with Foreigners as might be most for their respective Interests, without any Regard to the general Commerce of the Nation. *Henry* observing this Disorder, endeavoured to remedy it, by uniting all the Merchants in his Dominions into one Body; wherein, without losing the Liberty of trading each for himself, they might be governed by a *Company* still subsisting, and be subject to Regulations, which should secure the general Interest of the national Commerce, without Prejudice to the Interest of Particulars. With this View, he granted all the Merchants of his Dominions, particularly those of *Calais*, then in his Hands, a Power of associating themselves into a Body Politick, with Directors and Governors, both in *England* and Abroad, to hold Assemblies, both for the Direction of Business, and the deciding of Controversies among Merchants; make Laws, punish Delinquents, and impose moderate Duties and Taxes on Merchandizes and Merchants, to be employed in the Service of the Corporation.

These few Articles of the Charter of *Henry IV*, were much augmented by *Henry VII*, who first gave them the Title of *Merchant-Adventurers to Calais, Holland, &c.* gave them a Power of proclaiming and continuing free Fairs at *Calais*, and ordered that to be reputed a Member of the Society, each Person should pay 20 Marks Sterling; and that the several Members should attend the general Meetings, or Courts appointed by the Directors, whether at *London, Calais*, or elsewhere. The Non-execution of this last Article, and Contempt of some of the rest, occasioning great Inconveniencies to the *Company's* Affairs, another Charter was procured, whereby the Pain of Imprisonment was menaced, for those who should absent them-

selves from the Meetings without a lawful Cause; or should disobey the Laws.

A Petition being made to *Queen Elizabeth*, in 1564, for an Explanation of certain Articles in the Charter of *Henry VII*, and a Confirmation of the rest granted by other Kings; that Princess, by a Charter of the same Year, declares; that to end all Disputes; they shall be incorporated a-new, under the Title of the *Company of Merchant-Adventurers of England*; that all who were Members of the former *Company*; should, if they desired it; be admitted Members of this: That they should have a common Seal; that they should admit into their Society what other Persons, and on what Terms they pleased, and expel them again, on their Misbehaviour: That the City of *Hamburg*, and neighbouring Cities, should be reputed within their Grant; together with those of the *Low Countries*, &c. in that of the former *Company*. That no Member should marry out of the Kingdom, nor purchase Lands, &c. in any City beyond Sea; and that those who do, shall be, *ipso facto*, excluded for ever.

Twenty-two Years after this first Charter, *Queen Elizabeth* granted them a second, confirming the former; and further granting them a Privilege of Exclusion, with a Power of erecting in each City within their Grant, a standing Council.

The woollen Manufacture being the principal Object of their Application, they met with great Opposition therein, first from the *Hanse*, who forc'd them frequently to change their Mart, or Staple; and afterwards under King *James I*, who having erected a Corporation in 1616, in Favour of some private Persons; who offered to set up a Manufacture for dying and pressing Cloth, &c. under Pretence whereof, the *Company of Merchant-Adventurers* was prevented dealing therein. But the Project not succeeding; and the Charter being revoked two Years afterwards, the *Merchant-Adventurers*, whose *Company* had been dissolved two Years before, were restored, in 1617, to their antient Privileges, and a new Charter was given them, confirming their exclusive Right, and allowing them to have Officers in the several Custom-Houses, to have an Eye that they were not prejudiced in their woollen Manufacture, under Pretence of the like Merchandizes which others were allowed to send to other Parts. This Charter of King *James*, is the last of those confirm'd by *Charles II*, in the grand Charter of 1661.

The Revolutions which had happen'd in the *Low Countries* towards the End of the 16th Century, and which laid the Foundation of the Republick of *Holland*, having hinder'd the *Company* from continuing their Commerce with their antient Freedom; it was oblig'd to turn it almost wholly to the Side of *Hamburg*, and the Cities on the *German Ocean*; from which Change, some People took Occasion to change its Name to that of *Hamburg Company*.

The *RUSSIA COMPANY* was first projected towards the Reign of King *Edward VI*, executed in the 1st and 2d Years of *Philip* and *Mary*; but had not its Perfection till its Charter was confirm'd by Act of Parliament under *Queen Elizabeth*, in 1566. It had its Rise from certain Adventurers who were sent in three Vessels on the Discovery of new Countries, and to find out a *North-East Passage to China*: These falling into the White Sea, and making up to the Port of *Archangel*, were exceedingly well receiv'd by the *Muscovites*, and at their Return solicited Letters Patents to secure to themselves the Commerce of *Russia*, for which they had form'd an Association.

The Charter was promised them by *Edward VI*, but he dying, was first dispatch'd by *Queen Mary*, in 1555. By this Charter, the Association was declar'd a Body Politick, under the Name of the *Company of Merchant Adventurers of England, for the Discovery of Lands, Territories, Islands, &c. unknown, or unfrequented*. Their Privileges were, to have a Governor, 4 Counsuls, and 24 Assistants, for their Commerce; for their Policy to make Laws, inflict Penalties, send out Ships

to make Discoveries, take Possession of them in the King's Name, set up the Banner Royal of *England*, plant them, and, lastly, the exclusive Privilege of trading to *Archangel*, and other Ports of *Muscovy*, not yet frequented by the *English*.

This Charter not being sufficiently guarded, was confirm'd by Parliament, in the 8th Year of Queen *Elizabeth*; wherein it was enacted, that in Regard the former Name was too long, they should now be called the *Company of English Merchants for discovering new Trades*; under which Name, they should be capable of acquiring, and holding all Kinds of Lands, Manors, Rents, &c. not exceeding 100 Marks *per Ann.* and not held of her Majesty. That no Part of the Continent, Island, Harbour, &c. not known or frequented by the first Enterprize of the Merchants of their *Company*, situate to the *North*, *North-West*, or *North-East* of *London*, nor any Part of the Continent, Islands, &c. under the Obedience of the Emperor of *Russia*, or in the Countries of *Armenia*, *Media*, *Hircania*, *Persia*, or the *Caspian Sea*, shall be visited by any Subjects of *England*, to exercise any *Commerce*, without the Consent of the said *Company*, on Pain of Confiscation. The said *Company* shall use no Ships in her new *Commerce*, but those of the Nation; nor transport any Cloths, Serges, or other woollen Stuffs, till they have been dyed and pressed. That in Case the *Company* discontinue of itself to unload Commodities in the Road of the Abbey of *St. Nicholas* in *Russia*, or some other Port on the *North* Coasts of *Russia*, for the Space of 3 Years; the other Subjects of *England* shall be allow'd to traffick to *Narva*, while the said *Company* discontinues its *Commerce* into *Russia*, only using *English* Vessels.

This *Company* subsisted with Reputation almost a whole Century, till the Time of the Civil Wars. It is said, the Czar then reigning (who was *Alexis Michael*) hearing of the sacrilegious Murder of King *Charles I.* order'd all the *English* in his Dominions to be expell'd; which the *Dutch* taking the Advantage of, settled in their Room. After the Restoration, the Remains of the *Company* re-establish'd Part of their *Commerce* at *Archangel*, but never with the same Success as before; the *Russians* being now well accustom'd to the *Dutch* Merchants and Merchandize.

This *Company* subsists still, nearly on the Foot of that of *Hamburg*, and the *Northern* and *Turkey Companies*, *i. e.* each Member thereof trafficks for himself, and on his own Bottom, only paying an Acknowledgment of 12 or 13 *l.* Sterling, besides some other Dues impos'd from Time to Time for the Occasions of the *Company*, and the *Commerce* in general.

The *NORTH-SEA COMPANY*, or, as some, more agreeably to its Charter, call it, *East-Land Company*, is establish'd on the Foot of that of *Hamburg*, from whence it appears to have been dismember'd. Its Charter is dated in the Year 1579; by the first Article the *Company* is erected into a Body Politick, under the Title of the *Company of Merchants of the East*; to consist of *Englishmen*, all real Merchants, who have exercis'd the Business thereof, and traffick'd thro' the Sound, before the Year 1568, into *Norway*, *Sweden*, *Poland*, *Livonia*, *Prussia*, *Pomerania*, &c. as also, *Revel*, *Koningsberg*, *Dantzick*, *Copenhagen*, &c. excepting *Narva*, *Muscovy*, and its Dependencies. Most of the following Articles grant them the usual Prerogatives of such *Companies*; as a Seal, Governor, Courts, Laws, &c.

The Privileges peculiar to this *Company*, are, that none shall be admitted a Member, who is already a Member of any other *Company*; not any Retail Dealer at all. That no Merchant qualified be admitted, without paying 6 Pounds, 13 Shillings, and 6 Pence. That a Member of another *Company*, desiring to renounce the Privileges thereof, and to be receiv'd into that of the *East*, shall be admitted *gratis*, provided he procures the same Favour for a Merchant of the *East*, willing to fill his Place. That the *Merchant-Adventurers* who never dealt in the *East*, in the Places expressed in the Charter, may be receiv'd as Members

of the *Company*, on paying 40 Marks. That notwithstanding this Union of the *Adventurers* of *England* with the *Company* of the *East*, each shall retain its Rights and Privileges. That they shall export no Cloths but what are dy'd and press'd, except 100 Pieces *per Ann.* which are allow'd them *gratis*.

The Charter was confirm'd by *Charles II.* in 1661, with this Addition, that no Person, of what Quality soever, living in *London*, should be admitted a Member, unless he were free of the City.

The *TURKEY COMPANY*, or *LEVANT COMPANY*, is establish'd on the Foot of the *Hamburg Company*, *i. e.* there is no common Fund, wherein the *Adventurers* deposit their Stock, to make one single *Commerce*, but the *Commerce* thither is free, each Member trafficking for himself; but observing, withal, the Rules and Orders of the *Company*, and contributing occasionally towards the common Expences.

This flourishing Body had its Rise under Queen *Elizabeth*; *James I.* confirm'd its Charter in 1606, adding new Privileges. During the Civil Wars, there happen'd some Innovations in the Government of the *Company*; many Persons having been admitted Members, not qualified by the Charters of Queen *Elizabeth* and King *James*, or that did not conform to the Regulations prescrib'd. *Charles II.* upon his Restoration, endeavour'd to set it upon its antient Basis, to which End, he gave them a Charter, containing not only a Confirmation of their old one, but also several new Articles of Reformation. By this the *Company* is erected into a Body Politick, capable of making Laws, &c. under the Title of the *Company of Merchants of England trading to the Seas of the Levant*. The Number of Members is not limited, but is ordinarily about 300. The principal Qualification requir'd, is, that the Candidate be a Freeman of *London*, and a Wholesale Merchant, either by Family, or by serving an Apprenticeship of seven Years. Those under 25 Years of Age, pay 25 *l.* Sterling, at their Admission; those above, twice as much. Each makes Oath, at his Entrance, not to send any Merchandizes to the *Levant*, but on his own Account; and not to consign them to any but the *Company's* Agents, or Factors.

The *Company* has a Court, or Board, at *London*, compos'd of a Governor, Deputy-Governor, and 12 Directors, or Assistants; who are all actually to live in *London*, or the Suburbs. They have also a Deputy Governor in every City and Port, where there are any Members of the *Company*. The Assembly at *London* sends out the Vessels, regulates the Tariff for the Price at which the *European* Merchandizes, sent to the *Levant*, are to be sold; and for the Quality of those return'd. It raises Taxes on Merchandizes, to defray Impositions, and the common Expences of the *Company*; presents the Ambassador which the King is to keep at the Port, elects two Consuls for *Smyrna* and *Constantinople*, &c.

One of the best Regulations of the *Company*, is, not to leave the Consuls, or even Ambassador, to fix the Imposition on Vessels for defraying the common Expences, (a Thing fatal to the *Companies* of most other Nations) but to allow a Pension to the Ambassador and Consuls, and even to the chief Officers; as Secretary, Chaplain, Interpreters, and Janizaries; that there may not be any Pretence for their raising any Sum at all on the Merchants, or Merchandizes.

In extraordinary Cases, the Consuls, and even Ambassador himself, have Recourse to two Deputies of the *Company* residing in the *Levant*; or, if the Affair be very important, assemble the whole Nation. Here are regulated the Presents to be given, the Voyages to be made, and every Thing to be deliberated; and on the Resolutions here taken, the Deputies appoint the Treasurer to furnish the Monies, &c. requir'd. It is true, the Ambassador and Consuls may act alone on these Occasions; but the Pension being allow'd them on Condition of declining them, they chuse rather to sit still.

The ordinary *Commerce* of this *Company* employs from 20 to 25 Vessels, from 25 to 30 Pieces of Cannon

The Merchandizes exported thither are Cloths of all Kinds and Colours, Pewter, Lead, Pepper, Cochineel, and a great deal of Silver, which they take up at *Cadiz*: The Returns are in raw Silks, Galls, Camlets, Wools, Cottons, Morocco Leather, Ashes for making Glass and Soap, and several Gums, and medicinal Drugs.

The Commerce of this Company to *Smyrna*, *Constantinople*, and *Scanderoon*, is not esteemed much less considerable than that of the *East-India Company*; but is, doubtless, more advantageous to *England*; in regard it takes off more of the *English* Manufactures than the other, which is chiefly carried on in Money.

The Places reserved for the Commerce of this Company are all the States of *Venice*, in the Gulph of *Venice*; the State of *Ragusa*; all the States of the Grand Seignior, and the Ports of the *Levant*, and *Mediterranean*; excepting *Carthage*, *Alicant*, *Barcelona*, *Valencia*, *Marseilles*, *Toulon*, *Genoa*, *Leghorn*, *Civita Vecchia*, *Palermo*, *Messina*, *Malta*, *Majorca*, *Minorca*, and *Corfica*, and other Places on the Coast of *France*, *Spain* and *Italy*.

Many take the *SOUTH-SEA COMPANY*, established towards the Close of the 17th Century, to have been originally intended, rather as a political Contrivance for raising a Fund of Money, to serve in the pressing Occasions of the State, than as a real Establishment for the Sake of Commerce. For the Nation being exhausted of Money by the long Wars with *France* (and who but Madmen could wish for another) it is no Wonder the Phantom of a new Company should be raised to bring in the Subscriptions of the monied Men, as the only Expedient to be supplied with Money, without dissatisfying the People, already wore out with Subsidies, &c. Be this as it will, it is certain the Ministry never thought seriously, during the whole Course of the War, about making any Settlement on the Coast of *South-America*; which was the Thing wherewith the People were first flattered: Besides, that the Fund having been apparently perverted to defray the Expences of the War, its Value was so lowered, that it must, in all Probability, have sunk outright, but for the unexpected Help it met with in 1713, by the Treaty of *Utrecht*, the Business of the *French* *Affiento* Company, which was to furnish the *Spanish* *West-Indies* with Negroes, was resigned to the *English*, in favour of the *South-Sea Company*; which by this Turn relieved itself from its languishing Condition, and became in a Condition to vie with the most flourishing Companies of Commerce in *England*. The Treaty of this Company with the *Spaniards* commences from May 1713, and was to hold 30 Years; during which Time the Company was to furnish the *Spanish* *America* with 144,000 Negroes, of both Sexes, between fifteen and twenty-five Years of Age, sound, &c. at the rate of 4800*l.* per Ann. and for all they furnished besides, only to pay half the Dues to the King of *Spain*, for the first 25 Years of the Farm, or *Affiento*. It may be added, that in Consideration of 200,000 *Piastres* paid in Advance to the King of *Spain*, to be reimbursed as the Dues rise for the first ten Years, the Company was only to pay Dues for 4000. The King's Due is 33 *Piastres* 1/2 per Head.

Note, that a *Negro* between 17 or 18 and 30 Years of Age, was antiently only valued at about 45 Shillings, in their own Country, and in the Commodities proper for that Country, which are Brandies, Iron, Linnen, Paper, Brass Pots, Basons, &c. But their Value is now much enhanced, and it is seldom they meet with a good *Negro*, for 5*l.* they frequently give 7 or 8.

There are various Ways of procuring them: Some, to avoid Famine, sell themselves, their Wives and Children, to their Princes, or great Men, who have wherewithal to subsist them. Others are made Prisoners in War; and great Numbers seized in Excursions made for that very Purpose, by the Petty Princes upon one anothers Territories; in which it is usual to sweep away all, both Old and

Young, Male and Female. The Negroes make a frequent Practice of surprizing one another while the *European* Vessels are at Anchor, and drag in those they have caught, to them, and selling them in spite of themselves; and it is no extraordinary Thing to see the Son sell, after this Manner, his Father or Mother, and the Father his own Children, for a few Bottles of Brandy, and a Bar of Iron.

As soon as the Ship has its Complement, it immediately makes off; the poor Wretches, while yet in Sight of their Country, falling into such deep Grief and Despair in the Passage, that a great Part of them languish, fall into Sickness, and die; others dispatch themselves by refusing their Food; others by stopping their Breath, in a Manner peculiar to themselves, by turning and folding their Tongue, which immediately strangles them; others dash out their Brains against the Ship; and others jump overboard. The only sure Means to preserve them is to have some musical Instrument play to them, be it ever so mean. But this excessive Love for their Country abates as they get further off. At their Arrival in the Colonies each *Negro* is sold for 38 or 40*l.* they make the chief Riches of the Inhabitants of the Islands, &c. a Man, *v. gr.* who has twelve *Negroes* is esteemed a rich Man.

The last Article of the Treaty between the *Spaniards* and the *South-Sea Company*, gave them a farther Privilege, which was, that the *English* *Affientists* should be allowed, every Year, to send to the *Spanish* *America*, a Ship of 500 Tons, loaden with the same Commodities the *Spaniards* usually carry thither; with a Licence to sell the same concurrently with them, at the Fairs of *Porto Bello*, *Carthage*, and *Vera Cruz*. This additional Article was supposed as advantageous to the Company, as the whole Contract besides; being granted contrary to the usual *Spanish* Policy, which has ever preserved the Commerce of their *America* to themselves. Some new Articles had been added since, to the antient *Affiento*; as that the *English* should send their Register Ships yearly, even though the *Spanish* Flota and Galleons should not go; and that for the first ten Years the said Ships may be of 650 Ton.

The chief Establishment of the *French* *Affiento* Company was at *Buenos Ayres*, a Town of considerable Trade on the Coast of *South-America*. The *South-Sea Company*, who, without changing their Name, took on them the *Affiento*, or Farm of Negroes, preserved the same Establishment; and it is here their Vessels disembarked their Negroes, which they had purchased through all the Coasts of *Africa* within their Grant.

The Company, it is certain, set out with good Success; and there was room to hope still better; since, besides that the Value of their Stock the first five Years, rose faster, in Proportion, than that of any other Company; his late Majesty, after purchasing 10,000*l.* *Sterling* therein, was pleased to condescend to be their Governor.

Under the Auspices of this *South-Sea Company*, was formed, in 1720, that monstrous Scheme, the Execution thereof in 1720-21, proved oppressive to the whole Nation in general, and caused the entire Ruin of a great Number of Families, which were not in the infamous Secret.

The pretended Design of these Undertakings, was to raise a Stock for the retrieving, setting on Foot, and carrying on some promising and useful Branch of Trade, Manufacture, Machinery, or the like. In order to which Proposals were given out, shewing the Advantages of the Design, and inviting Persons into it. The Sum necessary to carry on the Affair, together with the Profit expected from it, were divided into a certain Number of Shares, or Subscriptions, to be purchased by Persons disposed to adventure therein. The real Design, in some, was to raise a Sum for the private Advantage of the Projectors; to be laid out by them in *South-Sea* Stock, &c. in hopes by the Rise thereof, to be able to refund the Subscribers Money,

with Profit to themselves. In others the Design was absolutely to defraud the Adventurers of their Subscription-money, without any View to Restitution.

There was a third Kind somewhat different: The Projectors of these, to proceed the more securely, proposed to have Books opened and Subscriptions taken at some Time to come; and in the mean Time took Money, by way of Premium, to entitle Persons to be admitted Subscribers, as soon as the Affair should be ripe, for dividing into Shares: Several thousand Shares were thus frequently bespoke in one Day; and Premiums from one Shilling to some Pounds, paid thereupon, to the Profit of the Projectors.

The Number of BUBBLES, and their Qualities, were very extraordinary: Some of them too authorized by Patents; and in others, the Projectors and their Proprietors formed into Corporations: Some for Fisheries, some for Insurances, some for the digging of their Mines, &c. but all in general for picking Pockets. Posterity, doubtless, will be surprised to hear of BUBBLES, for cleaning the Streets, others for furnishing Shoes, others for Stockings, others for Physick, others for the Maintenance of Bastard Children, others for buying bad Titles, others for the lending of Money, &c.

The HARBOROUGH COMPANY, was designed to set on Foot an immediate Commerce, between the Subjects of *England*, and those of his Britannick Majesty's *German Territories*. The first Scheme was laid in 1717; and a Charter obtained some Time after.

The WEST-INDIA COMPANIES, or those of the *English Colonies in North-America*, are of a lower Class than those abovementioned; and too numerous to be here described. Their Names are, the *Hudson's Bay Company*, *Virginia Company*, *New England*, *New York*, *Pensilvania*, *New Scotland*, *Massachusetts*, *Connecticut*, *Bermudas*, *Tobago*, and *Carolina Companies*.

The SCOTCH DARIEN COMPANY, was established with a good Prospect at *Edinburgh*, in 1699, for the Commerce of *South-America*. They sent an Armament and a Colony, which they endeavoured to establish in the Isthmus of *Darien*, which parts *North* and *South-America*: But the *English Ministry* not thinking proper to avow the first Successes of the Company, which had alarmed *Spain*, ever jealous of this Part of her Territories, the *Scotch Colony* was dispersed by the *Spaniards* in 1700: And thus vanished the best Project that ever was formed, for disputing with that Nation the Possession of those Countries, from which she pretends to exclude all other Nations.

There are likewise several Companies of Commerce established in *France*, viz. the *East-India Company*, *West-India Company*, *French Mississippi Company*, *Company of the West*, *India Company*, *Company of the Bastion of France*, *Guinea Company*, and *Assiento Company*. Among those different Companies some of them have been suppressed, some incorporated, and others are yet subsisting.

Of these last is the FRENCH EAST-INDIA COMPANY, established in 1664, with an exclusive Privilege to trade for 30 Years in all the Seas of the *East-Indies* and *South-Sea*: No Adventurer to be admitted without 1000 Livres in Stock; and Foreigners who have 20,000 Livres in Stock, to be reputed Regnicoles. The Patent grants them the Island of *Madagascar*; and the King to be at one fifth of the Expence of the three first Armaments, without Interest; the Principal to be refunded in ten Years; or if the Company find it loses on the whole, the Loss to fall on the King's Side.

The capital Fund of the Company, which was mostly furnished by the King, was seven or eight Millions of Livres, but was to have been 15 Millions. But though no Means were wanting to support the Company, yet it still drooped, and still struggled; till having subsisted ten Years without any Change in its Form, and being no longer able to discharge its Engagements, there were new Regulations concerted; but to little purpose. At length Things not being disposed for a new *East-India Company*, nor much Good to be ex-

pected from the old one, in 1708 the Ministry allowed the Directors to treat with the rich Traders of *St. Malo*, and resign to them their Privilege under certain Conditions. In the Hands of these last the Company began to flourish.

Its chief Factory is at *Pontichery*, or *Pondichery*, on the Coast of *Coromandel*: This is the Residence of the Director-general; the other Factories are inconsiderable. The Merchandizes which the Company brings into *France*, are Silks, Cottons, Spices, Coffee, Rice, Salt-petre; several Kinds of Gums and Drugs, Woods, Wax, printed Calicoes, Muslins, &c.

The FRENCH WEST-INDIA COMPANY, was established in 1664: Their Charter gave them the Property and Seignior of *Canada*, *Acadia*, *Antilles Islands*, *Isle of Cayenne*, and the *Terra Firma of America*, from the River of the *Amazons* to that of *Oroonoko*; with an exclusive Privilege for the Commerce of those Places, as also of *Senegal* and the Coasts of *Guinea*, for forty Years, only paying half the Duties. The Stock of the Company was so considerable, that in less than six Months, 45 Vessels were equipped; wherewith they took Possession of all the Places in their Grant, and settled a Commerce; yet it only subsisted nine Years. In 1674 the Grant was revoked, and the Countries above re-united to the King's Dominions, as before; the King reimbursing the Actions of the Adventurers. This Revocation was owing partly to the Poverty of the Company occasioned by its Losses in the Wars with *England*, which had necessitated it to borrow above a Million; and even to alienate its exclusive Privilege for the Coasts of *Guinea*; but also to its having in good Measure answered its End; which was to retrieve the Commerce of the *West-Indies* from the *Dutch*, who had tore it from them: For the *French Merchants* being now accusom'd to the Traffick to the *Antilles*, by Permission of the Company, were so attach'd to it, that it was not doubted they would support the Commerce after the Dissolution of the Company.

The FRENCH MISSISSIPPI COMPANY was first establish'd in 1684, in Favour of the Chevalier *De la Salle*; who having projected it in 1660, and being appointed Governor of the Fort *Frontigniac*, at the Mouth of that River, travell'd over the Country in the Year 1683, and return'd to *France* to solicit the Establishment. This obtain'd, he set sail for his new Colony, with four Vessels laden with Inhabitants, &c. but entering the Gulph of *Mexico*, did not, it seems, know the River that had cost him so much Fatigue, but settled on another River unknown, where his Colony perish'd, by Degrees; so that in 1685 there were not 100 Persons remaining. Making several Expeditions to find the *Mississippi*, he was kill'd in one of them by a Party who mutiny'd against him; whereupon, the Colony was dispers'd, and lost. *M. Hibernville* afterwards succeeded better; he found the *Mississippi*, built a Fort, and settled a *French Colony*: But he was poison'd, it is said, by the Intrigues of the *Spaniards*, who fear'd such a Neighbour. In 1712, *M. Crozat* had the whole Property of trading to the *French Territories* call'd *Louisiane*, granted him for 15 Years.

In 1717, the *Sieur Crozat* surrender'd his Grant, and in the same Year a new Company was erected, under the Title of COMPANY OF THE WEST; to which, besides every Thing granted to the former Company, was added the Commerce of *Castor*, enjoy'd by the *Canada Company* from the Year 1706, but expiring in 1717. In this Establishment, an equal View was had to the Finances, and the Commerce of the Nation; and, accordingly, Part of the Conditions of its Establishment regarded the settling a Colony, Trade, &c. the other the vending Part of the Bills of State, which could no longer subsist on their present Footing. The former are no more than are usual in such Establishments; for the latter, the Actions are fix'd at 500 Livres, each payable in Bills of State, the Actions to be esteem'd as Merchandize; and in that Quality to be bought, sold, and traffick'd. The Bills

Bills of State which make the Fund of the Actions, to be converted into yearly Revenue. To put the finishing Hand to the *Company*, in 1717, its Fund was fix'd at an hundred millions of Livres, which being fill'd, the Cash was shut up.

The Junction of the former *Company* with that of *Canada*, was immediately follow'd by its Union with that of *Senegal*, both in the Year 1718, by an Arret of Council, which at the same Time granted the new *Company* the *Commerce* of *Castor*, and made it Mistress of the *Negro*, or *Guinea* Trade, to the *French* Colonies in *America*.

Nothing was now wanting to its Perfection, but an Union with the *East-India Company*, and with those of *China* and *St. Domingo*, which was effected; with the two first in 1719, and with the third in 1720. This Union of the *East-India* and *China Companies* with the *Company* of the *West*, occasion'd an Alteration of the Name, and it was henceforth call'd the INDIA COMPANY.

The Reasons of the Union were, the Inability of the two former to carry on their *Commerce*, the immense Debts they had contracted in the *Indies*, especially the *East Company*, Complaints whereof had been sent to Court by the *Indians*, which discredited the *Company* so, that they durst not appear any longer at *Surat*; lastly, the little Care they took to discharge their Engagements, and their having transferr'd their Privilege to the private Traders of *St. Malo*, in Consideration of a Tenth in the Profits of the Returns of their Ships.

The antient Actions of the *Company* of the *West* which were not at *Par* when this Engraftment was projected, ere it was compleated, were risen to 300 *per Cent.* which unexpected Success gave Occasion to conclude the new Actions of the united *Companies* would not bear less Credit. The Concourse of Subscribers was so great, that in a Month's Time there were above fifty Millions subscrib'd for: The first twenty-five Millions Actions which were granted to the *India Company* beyond the 100 Millions of Stock allow'd the *Company* of the *West*, being fill'd as soon as the Books were open'd; to satisfy the Earnestness of the Subscribers, the Stock was increas'd by several *Arrets* to three hundred Millions. Credit still increasing, the new Actions rose to 1200 *per Cent.* and those of the antient *Company* of the *West* to 1900 *per Cent.* an exorbitant Price, to which no other *Company* ever rose.

Its Condition was now so flourishing, that in 1719 it offer'd the King to take a Lease of all his Farms for 9 Years, at the Rate of 3500000 Livres *per Annum* more than had been given before; and to lend his Majesty twelve hundred Millions to pay the Debts of the State. These Offers were accepted; and the King, in Consideration hereof, granted them all the Privileges of the several Grants of the *Companies* united to that *Company*, to the Year 1770; on Condition, however, of discharging all the Debts of the old *East-India Company*, without any Deduction at all. The Loan of twelve hundred Millions (which are above sixty Millions Sterling) not being sufficient for the Occasions of the State, was augmented, three Months afterwards, with three hundred Millions more; which, with the former Loan, and another of one hundred Millions before, made sixteen hundred Millions: For which the King was to pay Interest at the Rate of 3 *per Cent.*

The Duke of Orleans, in February 1720, did the *Company* the Honour to preside in their Assembly, where he made several Proposals to them on the Part of the King: The principal was, that they should take on them the Charge and Administration of the Royal Bank. This was accepted, and Mr. Law, Comptroller-General of the Finances, was nam'd by the King, Inspector-General of the *Company* and Bank united.

This Union, which, it was propos'd, would have been a mutual Help to both those famous Establishments, prov'd the fatal Point from whence the Fall

of both commenced. From this Time; both the Bank Bills, and the Actions of the *Companies*, began to fall; in Effect, the first perish'd absolutely, and the other had been drawn along with it, but for the prudent Precautions taken for its Support.

The first Precaution was, the revoking the Office of Inspector-General, and obliging Mr. Law to quit the Kingdom: The antient Directors were discarded, and new ones substituted; and to find the Bottom of the *Company's* Affairs, it was order'd, that they should give an Account of what they had receiv'd, and disburs'd, both on the Account of the *Company*, and of the Bank, which they had had the Management of near a Year. Another Precaution to come at the State of the *Company*, was, by endeavouring to distinguish the lawful Actionaries, from the *Mississippi*, Extortioners; whose immense Riches, as well as their criminal Address in realizing their Actions into Species or Merchandize, were become so fatal to the State; in order, if possible, to secure the honest Adventurers their Stock. To this End, an Inquisition was made into their Books, &c. by Persons appointed by the King; and the new Directors, or, as they were call'd, *Regisseurs*, began seriously to look about for their *Commerce* Abroad.

The *French* have had several other Companies, some whereof have fallen of themselves, the rest upon the Expiration of their Grants; as the

COMPANY OF THE BASTION OF FRANCE, which was at first a simple Association of two Merchants at *Marseilles*, in the 15th Century, for fishing of Coral in the Gulph of *Stora-Couzoury*, on the Coast of *Barbary*, on the Frontiers of *Algiers* and *Tunis*. Having obtain'd Leave of the Sultan, *Soliman II*, to make an Establishment; and having likewise treated with the *Moorish* Princes of the Country; in 1561, they built a little Fort, call'd the *Bastion of France*, whence the *Company* took its Name. The first Undertakers not being successful, a new Grant was obtain'd of *Mahomet III*, in 1604, to new Undertakers: In 1628, it began to flourish, and the Colony consisted of 800 People; but the Death of their Governor, in 1633, gave them a Blow they never recover'd.

Several of the *Companies* have since endeavour'd to set up the fishing of Coral on its antient Foot, but hitherto in vain.

The GUINEA COMPANY was establish'd in 1685; its Grant expir'd in 1705, but it continu'd its Trade of *Negroes*, by the King's Permission, under the Name of *Affiento Company*, to the Year 1713; when, by the Treaty of *Utrecht*, that Trade was surrender'd (as we have observ'd already) to the *English South-Sea Company*.

The Term *Affiento*, or *Affionta*, is originally *Spanish*, and signifies a Bargain. Accordingly, the first *Affiento* was a Contract made with the *French Guinea Company*, whereby they were put in Possession of a Privilege for furnishing the *Spanish* Dominions in *America* with *Negro* Slaves, in Consideration of a certain Duty which they were to pay to the King of *Spain's* Farms, for every *Negro* thus furnish'd.

This Contract was sign'd in the Year 1702, to last 10 Years, with a further Liberty allow'd the *Affientists* of two Years more, in Case they had not furnish'd the whole Number stipulated before. The two principal Articles regarded, first, the Number of *Negroes* to be provided, which was 3800 while the War lasted, and 4800 in Case of Peace. 2. The Duty to be paid the King of *Spain*, during the Farm, or *Affiento*; which was fix'd at 33 Pieces of Eight *per Head*, or *Pieza de India*.

The *Dutch* have, likewise, several Companies of *Commerce*, viz. the *Dutch East-India Company*, the *West-India Company*, the *North Company*, and the *Levant Company*.

The DUTCH EAST-INDIA COMPANY had its Rise in the midst of the Struggle which that People had for their Liberty: For the *Spaniards* having forbid all *Commerce* with them, and shut up all their Ports; Necessity inspir'd some *Zealanders* to seek a new *North-East Passage* to *China*.

This

This Enterprize proving unsuccessful to three several Armaments, in 1594, 1595, and 1596; a second Company was form'd, under the Name of the *Company of the remote Parts*; which in 1595 took the ordinary Rout of the *Portuguese* to the *Indies*, and return'd in two Years and a Half's Time, with little Gain, but good Hopes.

This Company, and a new one just establish'd at *Amsterdam*, being united, equipp'd other Fleets, and these occasion'd other Companies at *Amsterdam*, *Rotterdam*, *Zealand*, &c. insomuch, that the States began to apprehend they might be prejudicial to each other. Under this Concern, they call'd all the Directors of the several Companies together, who all consented to an Union, the Treaty whereof was confirm'd by the States in 1602; a very remarkable *Epocha*, as being that of the most solid and celebrated Establishment of *Commerce* that ever was in the World.

Its first Capital was 6440200 Florins, which was employ'd in the Equipment of two Fleets, one of 14 Vessels, which sail'd from *Holland* in the Month of *February* 1603; and the other of 13, which sail'd in the Month of *December* following. In this Fund, the undermention'd Cities of *Holland* participated, viz.

		Florins.
<i>Amsterdam</i> for the $\frac{1}{4}$	—	3686430
<i>Zealand</i> — $\frac{1}{4}$	—	1275653
<i>Delft</i> — $\frac{1}{16}$	—	466552
<i>Rotterdam</i> — $\frac{1}{16}$	—	174562
<i>Hoorn</i> — $\frac{1}{16}$	—	268430
<i>Enchuyfen</i> — $\frac{1}{16}$	—	568563

The whole Capital 6440200

At the Return of the two Fleets, the Company made so considerable a Profit, that in *April*, 1610, there was a Repartition made

Of ———— 75 per Cent. in *Mace*.
In *November* following, of 50 per Cent. in *Pepper*.
In *December*, the same Year, of $7\frac{1}{2}$ per Cent. in *Cash*.

In all $132\frac{1}{2}$ per Cent. as above.

In *March*, 1612, there was a Repartition made,

Of ———— 30 per Cent. in *Money*.
In *December* following, of $57\frac{1}{2}$ per Cent. in *Money*.

In all $87\frac{1}{2}$ per Cent. as above.

And in *August*, 1613, another Repartition made,
Of ———— $42\frac{1}{2}$ per Cent. in *Money*.

This Company is grown so powerful, and has so many Vessels, and Means to equip them, that it is a Thing almost incredible. It often wages War against the most powerful Princes of the *East*, and, notwithstanding, continues its *Commerce*. It has in the *Indies* 160 Vessels, from 30 Pieces of Cannon to 60; and, in Time of War, can arm 40 of the largest.

The Company is govern'd by 60 Directors, divided into several Chambers; 20 in that of *Amsterdam*, 12 in that of *Zealand*, 14 in that of *Delft* and *Rotterdam*, and a like Number in those of *Shuys* and *Hoorn*. As each Grant expires, the Company is oblig'd to procure a new one, which it has already done four Times since the first, viz. one in 1622, for 21 Years, like the first; another for 21 Years, commencing in 1647; and a third in 1665, for 25 Years; a fourth in *Advance*, commencing in 1698, which ended in 1740. Each Grant cost the Company a considerable Sum; that in 1647 cost 1600000 *Livres*, and the two following ones more. The last of 1698 was confirm'd by a Placard of the States General, granting them an exclusive Privilege.

Their Factories, Residences, &c. in the *East-Indies*, are almost infinite, reaching from the *Persian Gulph* to the Coasts of *China*. The principal is that

of *Batavia*, the Center of their Commerce: Here resides their General, with the State and Splendor of a Sovereign Prince: he never goes out but he has Horse Guards before his Coach, and Soldiers behind, with Pages walking by the Side of his Coach; and when he gives Audience to the Embassadors of the Eastern Kings, it is with an incredible Magnificence.

The other more considerable Factories are *Taicuan* on the Coast of *China*, *Nungisack* in *Japan*, *Malacca*, *Surat*, *Amboyna*, *Banda*, *Siam*, *Moluccas*, &c. several on the Coast of *Coromandel*, and at *Ispahan*, Cape of *Good Hope*, &c. in all, they number 40 Factories and 25 Fortresses.

The principal Merchandizes which the Company import into *Europe*, from the *East-Indies*, are brown and white Pepper, Salt-petre, Cinnamon, Nutmegs, Cloves, Cotton Cloths, Silk from *Persia*, *Bengal*, and *China*, Copper from *Japan*, Tin, Druggs, Musk, Amber, Pearls, Diamonds, &c.

Cloves, Nutmegs, and Mace, are Merchandizes peculiar to this Company, because they are found nowhere but in the *Molucca* Islands, the whole Commerce whereof the *Dutch* have engrossed to themselves. The Sale of these Commodities is held by the Company at two different Times, viz.

One half is sold in the Chamber of *Amsterdam*.
One fourth in that of ———— *Middleburg*.
One sixteenth in that of ———— *Delft*.
One sixteenth in that of ———— *Rotterdam*.
One sixteenth in that of ———— *Hoorn*.
One sixteenth in that of ———— *Enchuyfen*.
All the Merchandizes are sold in Bank Money.

The *Dutch West-India Company*, was established in 1621, with an exclusive Privilege to trade 24 Years along the Coasts of *Africa*, between the Tropick of *Cancer*, and the Cape of *Good Hope*, &c. and in *America*, from the South Point of *Newfoundland*, through the Streights of *Magellan*, that of *Le Maire*, or others to the Streight of *Anian*, both in the North and South Sea.

The Directors are divided into five Chambers (as in the *East-India Company*) out of which 19 are chosen for the general Direction of Affairs. In 1647 the Company renewed its Grant for 25 Years, but was scarce able to hold out the Term, by reason of its great Losses, and Expences in taking the Bay of *Todos los Santos*, *Fernambuck*, and the greatest part of *Brasil* from the *Portuguese*. The Weakness of this Company, which had several Times in vain attempted to be joined to that of the *East-Indies*, occasioned its Dissolution at the Expiration of its Grant.

In 1674 a new Company, composed of the ancient Proprietors and their Creditors, was settled in the same Rights and Establishments with the former; and still subsists with Honour: Their first Capital was about six Millions of Florins. Its principal Establishments, are, one at *Cape Verd*, another on the Gold Coast of *Africa*, at *Tobago*, *Curasao*, &c. in *America*.

The *Dutch North Company*, has no exclusive Privilege; the Advantages of its Patent being of another Kind, and very inconsiderable.

There are also in *Holland*, Companies for the *Baltick* Sea, the Fishery of *Nova Zembla*, *Davis's* Streights, and *Greenland*: Yet none of these Fisheries are interdicted to private Traders; all the Difference between these and the Companies consisting in this, that the former may not go ashore to cut their Fish in Pieces, and melt their Lard; but must bring their Luggage to *Holland*.

In Strictness there is no *Levant Company* in *Holland*: But the Commerce of the private Traders is so considerable, that the State has taken the Regulation thereof on itself. To this End they have established a Chamber of Direction at *Amsterdam*, composed of six Deputies and a Register; who, under the Burgomasters, take Care of every Thing relating to the Commerce of the *Mediterranean*; especially that of *Smyrna* and *Constantinople*. This Company names the Consuls, appoints

points the Number and Strength of Convoys, terminates Differences among the Traders; and has a Right on Occasion, to add new Regulations to the old ones; though those be of no Force, till confirmed by the States-General.

There are three Companies established in Denmark, viz. the North Company, the Iceland Company, and the East-India Company.

The North COMPANY, was established at Copenhagen, in 1647; its Establishments are very considerable in Norway; besides which it sends Vessels to Waranger, whence they convey their Merchandizes by Land into the Danish Lapland; and by Sledges drawn by Reindeers into the Muscovite Lapland. It sends others for Borundai and Siberia; where its Agents take them up, and convey them, in like Manner, on Sledges to Pannigord, the Capital of this Part of the Muscovite Empire.

The Commodities it sends thither are Rixdollars, Tobacco, and Linens; it returns nothing but Furs and Skins.

The Iceland COMPANY was established in the same Year with the North Company: Its chief Factory is Kirkebar, a large Town in that Island.

The Danish East-India COMPANY was established in the Middle of the 17th Century; their chief Factory is at Tranquebar, whither they send two or three Vessels every Year.

The Genoese had a Levant COMPANY established in 1664, and confirmed by the Porte. Its chief Commerce was to be in Pieces of 5 Sols, which the Genoese had before furnished the Turks withal, though in the French Name, and under their Banner; they were now to do it under their own Banner; and accordingly while the Humour of these Pieces lasted, as they served not only for Money, but were likewise used by the Greek and Turkish Women of the Islands, as Ornaments in their Head-dress, at the Bottom of their Vests, or Petticoats, which were covered with them; the Company succeeded well enough; but that Money being decried in 1670, the Company has languished ever since; and can now scarce support a miserable Commerce.

Note, that there are several other Particulars relating to a Commerce by Sea (not yet mentioned) which a Merchant must be perfectly acquainted with, as those relating to the Freight of a Ship, Charter-party, Average, Insurances, &c.

The FREIGHT, or Freight, is the Hire of a Ship, or of a Part of it; for the Conveyance, or Carriage of Goods from one Port, or Place, to another: Or the Sum agreed on between the Owner and the Merchant, for the Hire and Use of the Vessel. The Freight of a Vessel is commonly agreed on either at the Rate of so much for the Voyage, by the Month or per Ton.

Freight, or letting out Vessels on Freight, or Hire, is one of the principal Articles in the Trade of the Hollanders: They are the Carriers of all the Nations of Europe, and their Purveyors; notwithstanding that their Country produces nothing at all, and that they are forced to have every Thing necessary for the building of a Vessel from other Countries.

The principal Laws and Rules relating to Freight are: That if a whole Vessel be hired, and the Merchant, or Person who hires it, do not give it its full Load or Burthen, the Master of the Vessel cannot without his Consent take in any other Goods, without accounting for the Freight.

That though the Merchant do not load the full Quantity of Goods agreed on in the Charter-Party, yet he shall pay the whole Freight; and if he load more, he shall pay for the Excess.

That the Master may set ashore such Goods as he finds in his Vessel, which were not notified to him; or take them at a higher Rate than was agreed on for the rest.

That if a Ship be stopped or detained in its Course, either through the Master or the Merchant's Default,

the Delinquent shall be accountable to the other.

That if the Master be obliged to refit the Vessel during the Voyage, the Merchant shall wait; or else pay the whole Freight: If the Vessel could not be refitted, the Master is obliged to hire another immediately; otherwise only to be paid his Freight in Proportion to the Part of the Voyage performed; though, in Case the Merchant prove that the Vessel at the Time it set sail, was not capable of the Voyage, the Master must lose his Freight, and account for Damages to the Merchant.

That Freight shall be paid for Merchandizes which the Master was obliged to sell for Victuals, or refitting, or other necessary Occasions; paying for the Goods at the Rate the rest were sold at, where they were landed.

That in case of a Prohibition of Commerce with the Country whither the Vessel is bound, so that it is obliged to be brought back again: The Master shall only be paid Freight for going. And if a Ship be stopped or detained in its Voyage, by an Embargo by order of the Prince, there shall neither be any Freight paid for the Time of Detention, in case it be hired per Month: Nor shall the Freight be increased, if hired for the Voyage; but the Pay and the Victuals of the Sailors, during the Detention, shall be deemed Average.

That the Master shall take no Freight for any Ship lost by Shipwreck, plundered by Pyrates, or taken by the Enemy, unless the Ship and Goods be redeemed; in which Case he shall be paid his Freight to the Place where he was taken; upon contributing to the Redemption.

That the Master shall be paid his Freight for Goods saved from Shipwreck; and in case he cannot get a Vessel to carry them to the Place where they were bound, that he shall be paid in Proportion to the Part of the Voyage already gone.

That the Master may not detain any Merchandize in his Vessel, in default of Payment of Freight; though he may order them to be seized any Time, or any where afterwards. That if Merchandizes in Casks, as Wines, Oil, &c. have so run out in Carriage, that the Vessels are left empty, or almost empty; the Merchant may relinquish them, and the Master be obliged to take them for their Freight. Though this does not hold of any other Goods damaged, or diminished of themselves, or through Accidents.

Note, That Freight is also used for the Burthen, or Lading of a Ship; or the Cargo of Goods, &c. she has on board.

Freight, is also a Duty of 50 Sols per Tun, paid to the Crown of France by the Captains and Masters of all Foreign Vessels at their Entrance and coming out of the Ports and Havens of that Kingdom; and all Vessels not built in France, however they may belong to the Subjects of France, are reputed Foreigners and Subjects to this Impost; unless it be made appear, that two Thirds of the Ship's Crew are French. By the 11th Article of the Treaty of Commerce concluded at Utrecht between England and France, this Duty of 50 Sols per Tun was to have been remitted the English; and at the same Time the Duty of 5 s. Sterling to have been suppressed in Favour of the French: But the Execution of that Article, as well as the Tariff settled between the two Nations, has been suspended. The Dutch however, and the Hanse Towns are exempted from the Duty of Freight.

The CHARTER-PARTY, is the Instrument of Freightage, or Articles of Agreement for the Hire of a Vessel. The Charter-party is to be in Writing; and to be signed both by the Proprietor or the Master of the Ship, and the Merchant who freights it: It is to contain the Name and Burthen of the Vessel; those of the Master and the Freight, the Price or Rate of Freight, the Time of loading and unloading, and the other Conditions agreed on. It is properly a Deed,

or Policy, whereby the Proprietor, or Master of the Vessel, engages to furnish immediately a tight sound Vessel, well equipped, caulked and stopped, provided with Anchors, Sails, Cordage, and all other Furniture to make the Voyage required, as Equipage, Hands, Victuals, and other Munitions; in consideration of a certain Sum to be paid by the Merchant for the Freight. Lastly, the Ship, with all its Furniture, and the Cargo, are respectively subjected to the Conditions of the *Charter-party*.

The *Charter-Party* differs from a *Bill of Lading*, in that the first is for the entire *Freight* or *Lading*, and that both for going and returning; whereas the latter is only for a Part of the *Freight*, or at most only for the Voyage one Way. The President *Boyer* says that the Word comes from hence, that *per medium Charta incidebatur, et sic fiebat Charta partita*; because in the Time when Notaries were less common, there was only one Instrument made for both Parties; this they cut in two, and gave each its Portion, and joined them together at their Return, to know if each had done his Part. This he observed to have been practised in his Time; agreeable to the Method of the *Romans*, who in their Stipulations, used to break a Staff, each Party retaining a Moiety thereof as a Mark.

AVERAGE, or AVERIDGE, is the Damage which a Vessel, or the Goods and Loading thereof sustains from the Time of its Departure to its Return: As also from the Charge or Contributions raised on the Proprietors towards defraying such Damages.

An Author, who has wrote a Treatise expresses upon *Average*, distinguishes two Kinds thereof; simple, or private, and gross or common.

To the first, the particular Thing which suffers, alone contributes; to the second, all both the Ship and Merchandizes contribute in common.

Of the first Kind are all extraordinary and unforeseen Expences and Accidents, befalling either the Ship or the Goods, or both; the Loss in which Cases, is to be wholly defray'd by the Thing or Things which occasioned it: Such as the Loss of Cables, Anchors, Masts and Sails, by reason of Storms, &c. as also Damages accruing to Goods through their own Defects, by wasting, rotting, wetting, Storms, Pirates, &c. the Sailors Wages while the Ship is extraordinarily detained by Embargoes, provided she be hired for the whole Voyage, and not *per Month*. All these are simple or private *Averages*, and not to be charged to the common Account.

For grosser common *Average* to have Place, the Author, just mentioned, shews, 1. That something must have been cast into the Sea, and this out of absolute Necessity. 2. That the Commander have had the Consent of the Owners for so doing. 3. That it has only been done for the Safety of the whole Ship, and that the Ship has been saved in Consequence thereof: In which Case, all those for whose Interest the Thing has been cast into the Sea, are to contribute to indemnify the Person whose Property it was: And every Thing is to be taxed hereto, so much as Jewels, Gold, &c. notwithstanding they do not any way burthen the Ship; and even the Vessel itself, but not Passengers, nor Provisions.

To the Occasions of common *Average*, may be added Composition with Pirates for the Ransom of the Ship; as also Cables, Masts, Anchors, &c. lost or abandon'd for the common Good; the Food and Physick of the Sailors wounded in Defence of the Ship; and the Pay and Provisions of the Crew when the Ship is arrested, or put under Embargo by Order of the Prince, provided it were hir'd for the Month, and not for the whole Voyage.

Note, That *Average* is more particularly us'd for the *Quota*, or Proportion which each Merchant or Proprietor in the Ship's Loading, is adjudg'd, upon a reasonable Estimation, to contribute to a common *Average*. Such Sum shall be divided among the

several Claimers, by way of *Average*, in Proportion to their respective Interests and Demands.

Average is also a small Duty which those Merchants who send Goods in another Man's Ship pay to the Masters thereof, for his Care of them, and above the *Freight*. Hence, in *Bills of Lading* it is express'd, paying so much *Freight* for the said Goods, with *Primage* and *Average* accustom'd. Those *Bills of Lading* being an Instrument sign'd by the Master of a Ship, acknowledging the Receipt of a Merchant's Goods, and obliging himself to deliver them, at the Place to which they are consign'd, in good Condition. Of such Bills there are usually three: The *first* the Merchant keeps; the *second* is sent to the Factor to whom the Goods are consign'd; and the *third* is kept by the Master of the Ship.

INSURANCE, or *Policy of Insurance*, is a *Contract*, or *Convention*, upon which a Merchant having loaded, and causing Merchandizes to be transported by Sea or Land, fearing to lose them, finds one, or several other Merchants, who oblige themselves to pay, and repair the Loss and Damages which could happen during the Voyage, to the Ship and Cargo, on Condition of so much *per Cent.* for a certain Sum insur'd; which so much *per Cent.* is previously paid to the Insurer, and is call'd *Prime Insurance*, because it must be paid before-hand in receiving the Policy sign'd by the Insurer, or Insurers.

It does not suffice to have the Ship, Merchandizes, &c. insur'd; but the Insurers must likewise be rich, that they may be able to execute all the Articles of the *Convention* they are enter'd into.

The Policies, or Acts of Insurances, must contain the Name, and Place of Abode of the Person whose Effects are insur'd, his Quality of Proprietor, Agent, &c. the Effects insur'd, the Name of the Master, and of the Ship; the Name of the Place where the Merchandizes have been, or are to be loaded; that of the Harbour, or Port from whence the Vessel is sail'd, or is to sail; of the Ports, Bays, &c. where it is to load or unload, and of all those it is to enter during the Voyage, the Time when the Dangers begin and end; the Sums, and the Value which is understood to be insur'd; the *Prime* of the *Insurance*; and generally all the Conditions to be agreed upon.

If the Master of a Ship, during the Course intended, undertakes another Voyage, not mention'd in the *Policy of Insurance*; the Insurers are discharg'd of their Obligation.

Either the whole Cargo of a Ship may be insur'd, or all the Merchandizes in general on Board the several Vessels of a Fleet, or some Portion thereof, either $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{5}$, &c. Insurances are made on all the Perils, Risques, and unforeseen Accidents which could happen during the Voyage. There are *Insurances* whereby some Insurers oblige themselves for the Naufrages, and unforeseen Accidents; others for Losses, and the Robberies committed by Pirates, &c. others for the Dangers of Fire. There are *Insurances* made for all Voyages from one Place to another, even till the Return of the Ship, which happens often for Voyages to *America*, and the Coast of *Guinea*. There are some only for the Time spent in sailing from one Place to another; and others for Part of the Voyage. Even the Lives of Persons on Board have sometimes been insur'd, the Insurers engaging themselves to pay a certain Sum to the Heirs of those Persons, in Case they were to die.

As to the Prices at so much *per Cent.* on *Insurances*, they are different, according to the Risques; sometimes they give for a Voyage, 2, 3, and 4 *per Cent.* and at other Times, according to the Dangers, as far as 12, and 30 *per Cent.* &c. for in this they consider either the Quality of the Merchandize; for Example, if it be Salt, subject to be melted; Corn, subject to be wetted, and spoil'd; or the Soundness of the Ship, either old, or newly built; its Sails, Rigging, Artillery,

lery, Complement, &c. and, lastly, the apparent Dangers on the Sea; viz. if it be in Time of Peace, or War; if it be suspected that there is a great Number of Pirates; the Seasons of the Year, Dangers of the Coasts, Distance of Places, and the Government of those to which the Navigation is directed.

The unforeseen, and extraordinary Accidents meant in this Place, are, all those which can't be prevented, by human Wisdom, Vigilancy, or Care; such as Tempests, the Rapidity of the Currents, excessive rolling of the Sea, Lightning, &c. Pirates, Enemies, &c.

The *Naufrage* of a Ship, is one of the greatest Accidents that can happen to it; and is often occasion'd by the Ignorance, Presumption, &c. of the Mariners, or by the Ship being too much loaded, &c. tho' in the *Insurances* made for all unforeseen Accidents in general, *Naufrages* are understood; it is, nevertheless, one of the most considerable and important Articles, which ought to be very well specified in the *Policies* of *Insurances*.

The *Jet*, or throwing into the Sea Part of the Cargo, or other heavy Things, to lighten the Ship, and avoid a *Naufrage*, is also rank'd among the unforeseen Accidents.

The *Capture* of the Merchandizes, or Ship, by the Enemies, which are to be discuss'd in order to know if the Letters of Marque, or of Reprisals, be just, and legitimate; and if the Captures be just Seizures, should likewise be reckon'd as unforeseen Accidents.

Insurances made on unforeseen Accidents upon Corn, are not to be exacted, when they are taken by Friends, or Allies, who take the Corn, but because they want it, oblig'd to it by pure Necessity, tho' they pay but a low Price for it, because they are not to be accounted Pirates, or Enemies.

A Capture by Pirates, Thieves, &c. is an unforeseen, or unhappy Accident.

When a Ship has been taken by Pirates, or Enemies, and is ransom'd afterwards, in common; every one must contribute, in Proportion of the Merchandizes he has on Board, and the Master of the Ship, for the Ship and its Rigging; and if there be no Agreement enter'd into for the Ransom of the whole Ship, any Body may ransom the Merchandizes which belong to him in particular, and such Ransom in no wise affects the other Merchandizes. Likewise, if the Enemies, or Pirates, were only to carry off the Merchandizes of a single Person, he must alone, and not the Insurers, bear the Loss.

The Master can borrow Money to repair the Damages which the Ship has suffer'd during a Storm, and even in Case of an extreme Necessity (which he must be oblig'd to justify) he could sell $\frac{1}{4}$ of the Cargo; with this Difference, that he ought not to do it while there is something else on Board, which can serve the same Purpose.

Though I have already given the Form of several Writings commonly us'd by Merchants and Traders, it will not be improper (before I conclude this *Treatise of Commerce*) to give some others not yet mention'd; as that of a *Bill of Debt*, a *Bill of Lading*, a *Bill of Parcels*, a *Bill of Entry* at the Custom-House, a *Bill of Sale*, a *Charter-party of Affreightment*, a *General Release*, an *Invoice or Factory*, a *Letter of License*, a *Policy of Insurance*, the *Protest of a foreign Bill*, a *Broker's Bond*, to the Lord Mayor, and Court of Aldermen of London; and an *Umpirage*.

A *Bill of Debt* runs thus: Know all Men by these Presents, that I *Peter Presgrove*, of London, Draper, do owe, and am indebted to *Paul Bridly*, of London, Merchant, the Sum of eight hundred fifty-two Pounds of lawful *English* Coin; which said Sum I promise to pay unto the said *Paul Bridly*, his Executors, Administrators, or Assigns, on or before the 24th Day of *July* next ensuing the Date hereof. Witness my Hand and Seal, the 28th Day of *April* 1742.

Seal'd and deliver'd in the
Presence of *Nicholas
Freeman*, and *Benjamin
Low*.

P. Presgrove.

The Form of a *Bill of Lading* is this: Shipp'd, by the Grace of God, and in good Condition, by *Francis Evans*, of London, Merchant, and Company, in and upon the good Ship call'd the *Prince Frederick*, of *Dover*; whereof is Master, under God, for this present Voyage, *Samuel Sailtrue*, of London, Mariner, and now riding at Anchor in the Port of London, and by God's Grace bound for *Leghorn* in *Italy*; that is to say,



1 Bale of woollen Cloth, 1 Cask of Tin in Blocks, and 1 Cask of refin'd Sugar; Contents, &c. as per Invoice, being mark'd and number'd as in the Margin, and are to be deliver'd in the like good Order, and well condition'd, at the said Port of *Leghorn*, (the Danger of the Sea only excepted) unto Mr. *David Dealfair*, Merchant there, or to his Assigns, he or they paying Freight for the said Goods, 2 Dollars per hundred Weight, for the Tin and Copperas, and $1\frac{1}{2}$ Dollar per Cloth, with Primage and Average accustom'd. In Witness whereof, the Master or Purser of the said Ship has affirm'd to three *Bills of Lading*, all of this Tenor and Date; one of which three Bills being accomplish'd, the other two to stand void. And so God send the good Ship to her desir'd Port in Safety. Amen.

Dated in London, the 28th of *June*, Anno Domini 1742, Infides and Contents unknown to
Samuel Sailtrue.

The Form of a *Bill of Parcels*, bought at Time, is as follows:

Mr. *Joseph Grove*, London, July 4, 1742.
Bought of *Philip Olive*, 4 Bales of *French Cloth*, to pay at 6 Months, as follows:

		l.	s.	d.	l.	s.	d.
N ^o 4	qt. 3 $\frac{1}{2}$	Pieces	Doulas	at 3 06 0 each,	11	11	0
7	— 4	Pieces	Ditto	at 4 10 0 —	18	00	0
8	— 3	Pieces	Ditto	at 4 15 0 —	14	05	0
14	— 3	Ps.	Lockrams	at 2 15 6 —	08	06	6
13 $\frac{1}{2}$ Pieces in all, at					52	02	6

Another *Bill of Parcels*.

M. *Pet. Paydown*, and Com. Lond. July 10, 1742.
Bought of *Titus Tradewell*, for present Money, 12 Bags of Cotton, viz.

	C.	q.	lb.		C.	q.	lb.
N ^o 1	qt. 3	1	17	N ^o 7	— 2	3	16
2	— 2	2	10	12	— 3	1	10
5	— 2	3	05	20	— 3	0	27
6	— 3	0	23	21	— 2	3	04
11 3 27				12 1 01			
12 1 01							

24 1 00 Total Gross

00 3 13 Tare

23 1 15 Suttle 2619 lb.

Tret 100 $\frac{1}{2}$ lb.

Neat 2518 $\frac{1}{2}$ lb. at 14d. per lb.
(146l. 18s. 3d.)

More, viz.

N ^o 30	— 2	3	12
31	— 3	0	10
32	— 3	1	26
42	— 2	2	16

Damag'd.

12 0 08 Gross

0 1 20 Tare

11 2 16 Suttle 1304 lb.

Tret 50

Neat 1254 lb. at 4d. per lb.
(20l. 18s. 0d.)
167l. 16s. 3d.

A

A *Bill of Entry* at the *Custom-House*, runs thus :

June 29, 1742.

In the *Prince Frederick*, *Samuel Sailtrue* for *Leghorn*.
Francis Trueman.

Nine short Cloths.

Fourteen hundred, three quarters, of Tin.

Six hundred, one quarter, and twenty-four Pounds,
double-refin'd Sugar.

The most usual *Bill of Sale* among Traders, is, when a Person, wanting a Sum of Money, deposits Goods as a Security to the Lender; which Goods, in Case the Sum borrow'd is not repaid, with Interest, at a Time prefix'd, are forfeited to the Creditors. It runs thus :

KNOW ALL PERSONS WHOM IT MAY CONCERN, that I *Lazarus Lackcash*, of *Norwich*, in the County of *Norfolk*, Goldsmith, for, and in Consideration of fifty Pounds, of lawful Money of *England*, to me in Hand, paid by *James Goldwell*, of *London*, Esq; the Receipt whereof I do hereby acknowledge, have bargain'd, sold, and deliver'd, and by these Presents, according to the due Form of Law, do bargain, sell, and deliver unto the said *James Goldwell*, 4 Caracts of Oriental Pearls, 9 Grains of Brilliant Diamonds, 1 Silver Tea-Pot, Weight 20 Ounces, 1 Silver Salver, Weight 10 Ounces, 2 Sets of Silver Casters, Weight 30 Ounces, and 10 Cornelian Rings; seal'd up, by Consent, with my Seal; to have and to hold the said bargain'd Premises unto the said *James Goldwell*, his Executors, Administrators, and Assigns, for ever. And I, the said *Lazarus Lackcash*, for myself, my Executors, and Administrators, the said bargain'd Premises unto the said *James Goldwell*, his Executors, Administrators, and Assigns, against all Persons, shall and will warrant, and for ever defend by these Presents; provided, nevertheless, that if I, the said *Lazarus Lackcash*, my Executors, Administrators, and Assigns, or any of us, do, and shall well and truly pay, or cause to be paid, unto the said *James Goldwell*, his Executors, Administrators, or Assigns, the Sum of fifty Pounds Principal, and thirty Shillings, Half a Year's Interest thereof, on the first Day of *December* next ensuing the Date hereof, for the Redemption of the said bargain'd Premises; then this present *Bill of Sale* shall be void, or else to remain in full Force. In Witness whereof, I have hereunto set my Hand and Seal, the first Day of *May*, *Ann. Dom.* 1742, and in the 15th Year of the Reign of our Sovereign Lord *George II*, King of *England*.

Seal'd and deliver'd, &c.

A. B.

Lazarus Lackcash.

C. D.

The Form of a *Charter-party of Affreightment*, is as follows :

This *Charter-party of Affreightment*, indented, made, and agreed upon, the 21st Day of *June*, *Ann. Dom.* 1742, and in the 15th Year of the Reign of our Sovereign Lord, *George II*, King of *England*, &c. between *Herbert Haulaway*, of *Deptford*, Mariner, Master (under God) of the good Ship, or Vessel, called the *Fortunate*, of the Burthen of 300 Tuns, or thereabouts, now riding at Anchor in the Port of *Plymouth*, of the one Part; and *James Richmore*, of *Portsmouth*, in the County of *Hants*, Merchant, of the other Part; witnesses, that the said Master has granted, and let to Freight, the said Vessel, unto the said Merchant; and the said Merchant has hir'd the said Vessel for a Voyage with her, to be made in Manner and Form following; that is to say, the said *Herbert Haulaway*, for himself, his Executors, and Administrators, does covenant, promise, and grant to, and with the said *James Richmore*, his Executors, and Administrators, by these Presents, that the said Vessel, with the first fair Wind that God shall send after the 24th Day of *July* next ensuing the Date above, shall depart from the said Port of *Plymouth* with such law-

ful Goods and Merchandizes as it shall please the said *James Richmore*, or his Assigns, in the mean Time, to lade on Board her : And that it shall be lawful to and for the said *James Richmore*, his Factors, and Assigns, in the mean Time, to lade on Board her all such lawful Goods and Merchandizes as he or they shall think fit, which she may reasonably carry over and above her Victuals, Tackle, and Apparel. And that the said Vessel shall, by God's Grace, directly, as Wind and Weather will serve, sail unto the Port or Harbour of *Aleppo* in *Turkey*, and there deliver unto the said *James Richmore*, his Executors, Administrators, Factors, or Assigns, dry, and well condition'd, Dangers of the Sea, Fire, Enemies, and Embargo of Princes, only excepted. And after her clearing, and right Discharge of such Goods as she shall receive into her within the said Port of *Plymouth*, shall receive into the said Port of *Aleppo* her full Loading in such lawful Goods and Merchandizes as it shall please the said *James Richmore*, his Executors, Administrators, Factors, or Assigns, to lade, or cause to be laden a-board her; and after such her full Lading at the Port of *Aleppo* aforesaid, shall directly sail, as Wind and Weather will permit, to the said Port or Harbour of *Plymouth* aforesaid, and there deliver to the said *James Richmore*, his Executors, Administrators, Factors, or Assigns, within the Space of ten working Days hereafter mention'd, the said Goods and Merchandizes so receiv'd into her at *Aleppo* aforesaid, dry, and well condition'd, and make a right Discharge and End of the said Voyage, the Danger of the Sea, Fire, Enemies, and Embargo of Princes and Rulers, only excepted : And that the said Vessel, after her Arrival at *Aleppo* aforesaid, shall stay at Anchor there, for her unlading and relading, fifty working Days, and shall stay at Anchor at the said Port of *Plymouth*, after her Return again, and Arrival there from *Aleppo* aforesaid, ten working Days, for the Delivery of the said Goods so to be laden a-board her at *Aleppo* aforesaid. And the said *James Richmore*, for himself, his Executors, and Administrators, does further covenant, promise, and grant to, and with the said *Herbert Haulaway*, his Executors, and Administrators; and also warrant by these Presents, the said Vessel, at her Departure from the said Port of *Plymouth*, and during the said Voyage shall be strong and staunch, and sufficiently victualled, tackled, and apparelled, and furnished with Masts, Sails, Sail-yards, Anchors, Cables, Ropes, Cords, Tackle, Apparel, Boat, and all other Furniture whatsoever, requisite or needful for such a Vessel, or for such a Voyage. And the said *James Richmore*, for himself, his Executors, and Administrators, does covenant, and grant to, and with the said *Herbert Haulaway*, his Executors, and Administrators, not only to unlade and relade, and dispatch the said Vessel at and from *Aleppo* and *Plymouth* aforesaid, within the Time and Times before therefore limited and agreed upon; but also for the Freight or Hire of the said Ship or Vessel for all the said Voyage, viz from *Plymouth* to *Aleppo*, and from thence to *Plymouth*, well and truly pay, or cause to be paid, unto the said *Herbert Haulaway*, his Executors, Administrators or Assigns, the Sum of 350 *l.* of lawful *English* Coin in the Manner and Form following; that is to say, the Sum of 58 *l.* at the said Port of *Aleppo*, within twenty Days next after the Arrival of the said Ship or Vessel, and Delivery of the said Goods well conditioned at *Aleppo* aforesaid, and 292 *l.* more, Residue of the said 350 *l.* at *Plymouth* aforesaid, within ten working Days after the Return again and Arrival of the said Ship or Vessel from *Aleppo* to *Plymouth*, and the Delivery of the said Goods to be received into her at *Aleppo* aforesaid, unto the said *James Richmore*, his Executors, Administrators, Factors or Assigns at *Plymouth* aforesaid, well conditioned as aforesaid; together with *Primage* and *Average*, according to the Use and Custom of Merchants. And the said *James Richmore* for himself, his Heirs, Executors, and Administrators, does covenant and grant to and with the said *Herbert Haulaway*, his Executors, and Administrators, by

by these Presents, that in case the said Vessel shall, through the Default of the said *James Richmore*, his Factors, or Assigns, stay for her unlading or relading at *Aleppo* aforesaid, or for her lading at *Plymouth* aforesaid, before her Departure from thence; or for her unlading at *Plymouth* aforesaid, and after her Return and Arrival from *Aleppo* aforesaid to *Plymouth* aforesaid, after the several Days therefore abovementioned, that then the said *James Richmore*, his Executors or Administrators, shall and will pay, or cause to be paid unto the said *Herbert Haulaway*, his Executors or Administrators, the Sum of Thirty Shillings Sterling for every working Day that the said Vessel shall either stay at *Aleppo* for her unlading and relading, or at *Plymouth* aforesaid, for her lading or unlading, after the Days above limited and agreed upon; and to the Performance of all and singular the Covenants and Agreements abovementioned, which on the Part and Behalf of the said *Herbert Haulaway*, his Executors or Administrators are to be performed in all Things as above-said, the said *Herbert Haulaway* binds himself, his Executors and Administrators, and especially the Ship or Vessel aforesaid, with her Freight, unto the said *James Richmore*, his Executors and Administrators, in the Sum or Penalty of 400 *l.* of lawful Money of *England*, well and truly to be paid by these Presents; and likewise for the Performance of all and singular the Covenants and Agreements abovementioned, which on the Part and Behalf of the said *James Richmore*, his Executors, Administrators, are and ought to be performed in all Things as are above recited, the said *James Richmore* binds himself, his Executors, and Administrators, and Goods, unto the said *Herbert Haulaway*, his Executors and Administrators, in the Sum or Penalty of 400 *l.* of like Money of *England*, well and truly to be paid by these Presents. In witness whereof, the Parties first above-named to these Charter-Parties indented, interchangeably have set their Hands and Seals, the Day and Year first above-written.

Sealed and delivered, &c.

HERBERT HAULAWAY.

An *Envoyce* or *Factory* runs thus:—*Envoyce* (or *Factory*) of 6 Hogsheads of Tobacco, 5 Bags of Shomack, 12 Barrels of Orgal, 3 Chests of Sugar, and in Bales of Woolen-Cloth, ship'd on board the *Streight's Merchant*, *Peter Love* Master, for the proper Account and Risque of *Paulo Maridani*, Merchant in *Leghorn*, and consigned to himself, being marked and numbered as *per* Margent, Contents, Coists, and Charges as follows:

Best bright Tobacco, 6 Hogsheads, viz.							
	C.	q.	lb.		C.	q.	lb.
No. 1. —	2	3	07	Tare	0	2	14
2. —	3	1	10	Tare	0	2	20
3. —	3	3	00	Tare	0	2	00
4. —	4	1	27	Tare	0	3	04
5. —	2	2	20	Tare	0	2	10
6. —	5	2	10	Tare	0	3	12
Total Gros	22	2	18	Tare	4	0	04
Tare	4	0	04				

18 2 14 Suttle, 2046 lb.
Tret, 80 lb.

Nett, 2006 lb.

2006 lb. at $7\frac{1}{2}$ per Pound — 62 13 09

Shomack 5 Bags, viz.

	C.	q.	lb.
No. 7. Nett.	2	2	07
8. —	2	0	24
9. —	1	3	17
10. —	3	0	06
11. —	2	1	20

In all 12 0 08 at 12s. per Hundred } 7 05 11

69

Orgal, viz.

No. 12. to 23. qt. 12 Barrels, at } 62 13 09
14s. per Barrel

Sugar double-refined, 3 Chests, viz.

No. 24. — 381 lb.
25. — 505 lb.
26. — 326 lb.

1212 Nett, at 18d. per lb. 90 18 00

Cloth 3 Bales, viz.

No. 27, 28, 29. qt. each (with Wrappers) 10 short Cloths, at } 360 00 00
12 l. per Cloth

529 05 08

Charges, viz.

To Custom of all	53 19 09 $\frac{1}{2}$
To Cost of 3 Chests for the Sugar	0 18 00
Ditto of 3 Wrappers for the Cloth	0 07 00
Brokerage at $\frac{1}{2}$ per Cent.	2 12 10 $\frac{3}{4}$
Storage	1 00 00
Cartage and Porterage	0 10 06

588 13 10

To my Commission at $2\frac{1}{2}$ per Cent. 14 14 04

Laus Deo, London, May 4, 1742. Errors excepted,
per Timothy Featly.

The *Protest* of a foreign Bill, is as follows:

Know all Persons whom this present Writing may concern, that the 28th Day of June 1742, at the Request of Mr. *Richard Rich* of London, Merchant, I *Isaac Sharp* Publick Notary, sworn and admitted by Authority of his sacred Majesty *George II.* King of *England*, &c. did go to the dwelling House of Mr. *Paul Puttoff*, upon whom the abovenamed Bill of Exchange is drawn, and shewed the Original unto the said Mr. *Paul Puttoff*, demanding its Acceptance of the same, who answered me, he would not accept the said Bill for Reasons best known to himself, of which he would inform the Drawer Mr. *Frederick Farfetch*. Wherefore I the said Notary did protest, and by these Presents do protest as well against the said *Frederick Farfetch*, as against the said *Paul Puttoff*, as also against all other Persons, Endorsers, and others therein concerned, for all Changes, Rechanges, Charges, Damages, and Interest whatever. In Presence of *A. B.* and *C. D.* called for Witnesses to this present Act done in my Office in London the Day and Year abovesaid.

Isaac Sharp, Publick Notary.

An *Umpirage* runs thus:—To all People to whom this present Writing shall come, I *Ferdinando Dacosta* of London, Umpire indifferently chosen by *Benjamin Bidfare* and *William Wellmeant* of London, Merchants, having deliberately heard and understood the Grievs, Allegations, and Proofs of both the said Parties, and willingly, as much as in me lies, to set the said Parties at Unity and good Accord, do by these Presents arbitrate, award, order, deem, decree, and judge, that the said *Benjamin Bidfare*, his Executors and Assigns, shall well and truly pay or cause to be paid unto the said *William Wellmeant*, his Executors, Administrators or Assigns the full Sum of 35 *l.* of lawful Money of *England* on the 24th of July 1742, and that upon Payment thereof the said *Benjamin Bidfare* and *William Wellmeant* shall seal, subscribe, and as their several Acts and Deeds deliver each to the other a general Release in Writing of all Matters, Actions, Suits, Causes of Actions, Bonds, Bills, Covenants, Controversies, and Demands whatsoever, which either of them has, may, might, or in any wise ought to have of and against each the other of them by Reason aforesaid, or Means of any Matter, Cause or Thing whatsoever, from the Beginning of the World, to the First Day of May now last past, and in the Fifteenth Year of the Reign of our Sovereign Lord *George II.* of *England*,

9 Y

England, &c. In Witness whereof, I have hereunto set my Hand and Seal the 14th Day of July, in the Year of our Lord 1742.

Sealed and delivered in the
Presence of Bryan Butler,
Charles Cook.

FERDINANDO DACOSTA.

I shall conclude this Treatise of Commerce, by the Rate of Post-Letters.

Foreign European Letters and Packets.

	Single		Double		Treble		Ounce	
	s.	d.	s.	d.	s.	d.	s.	d.
From any Part of France to London —	0	10	1	8	2	6	3	4
From London through France to any part of Spain or Portugal (Post paid to Bayonne) and the contrary	1	6	3	0	4	6	6	0
From London through France, to any part of Italy or Sicily, by the way of Lyons: Or to any part of Turkey, by the way of Marseilles, and on the contrary	1	3	2	6	3	9	5	0
From any part of the Spanish Netherlands to London	0	10	1	8	2	6	3	4
From London through the Spanish Netherlands, to any part of Italy or Sicily, (Post paid to Antwerp) and on the contrary	1	0	2	0	3	0	4	0
From London through the Spanish Netherlands, to any part of Germany, Switzerland, Denmark, Sweden, and all parts of the North, and the contrary	1	0	2	0	3	0	4	0
From London through the Spanish Netherlands, to any part of Spain or Portugal, and the contrary	1	6	3	0	4	6	6	0
From any part of the United Provinces to London	0	10	1	8	2	6	3	4
From London through the United Provinces, for any part of Italy or Sicily, and the contrary	1	0	2	0	3	0	4	0
From London through the United Provinces, to any part of Germany, Switzerland, Denmark, Sweden, and all parts of the North; and the contrary	1	0	2	0	3	0	4	0
From London through the United Provinces, unto any part of Spain or Portugal; and the contrary	1	6	3	0	4	6	6	0
From London through the Spanish Netherlands, or the United Provinces, to Hamburg; (Post paid to Antwerp or Amsterdam) and the contrary	0	10	1	8	2	6	3	4

By Packet-Boats.

Between London, Spain, or Portugal — 1 6 3 0 4 6 6 0

Ireland Letters and Packets.

From London to Dublin, and the contrary; and not coming from, or directed on board a Ship	0	6	1	0	1	6	2	0
From Dublin to or from any Place, not exceeding 40 English Miles from the chief Office in Dublin, and not coming from or directed on Shipboard	0	2	0	4	0	6	0	8
If above 40 Miles from Dublin, and within the Kingdom	0	4	0	8	1	0	1	4

North-Britain Letters and Packets.

From London to Edinburgh, and the contrary; and to and from Dumfries or Cockburnspath, and between either of those Places and Edinburgh, not coming from or directed on Shipboard	0	6	1	0	1	6	2	0
From Edinburgh, not exceeding 50 Miles in Scotland, and not directed on nor from on Shipboard	0	2	0	4	0	6	0	8
From any Place above 50, and not exceeding 80 Miles in Scotland from Edinburgh, and not coming from nor directed on Shipboard	0	3	0	6	0	9	1	0
And if to or from Places above 80 Miles from Edinburgh in Scotland, &c.	0	4	0	8	1	0	1	4

Note, That Writs, &c. are liable to pay in Proportion to the Ounce, respectively in Great Britain and Ireland.

English or South-British, or Inland Letters, are rated thus:

From London to or from any Place, not exceeding 80 Miles Distance from London	0	3	0	6	0	9	1	0
And to and from any Place above 80 Miles from London	0	4	0	8	1	0	1	4

American Letters and Packets, viz.

All Letters and Packets from London to Jamaica, Barbadoes, Antegoa, Montserrat, Nevis, and St. Christopher; and the contrary	1	6	3	0	4	6	6	0
From London to New-York, and the contrary	1	0	2	0	3	0	4	0
From any part of the West Indies to New-York	0	4	0	8	1	0	1	4
From New-York to any Place within 60 English Miles thereof; and the contrary	0	4	0	8	1	0	1	4
From New-York to Perth-Amboy (the chief Town in East New Jersey; and to Bridlington in West New Jersey; and the contrary) and from New-York to any Place, not exceeding 100 English Miles; and the contrary	0	6	1	0	1	6	2	0
From Perth-Amboy to Bridlington, to any Place not exceeding 60 Eng. Miles; and the contrary	0	4	0	8	1	0	1	4
From those Places, and the contrary, not exceeding 100 English Miles	0	6	1	0	1	6	2	0
From New-York to New-London, (the chief Town in Connecticut in New England) and to Philadelphia, the chief Town in Philadelphia; and the contrary	0	9	1	6	2	3	3	0
From New-London and Philadelphia, not exceeding 60 English Miles, and back again	0	4	0	8	1	0	1	4
From those Towns, not exceeding 100 Miles, and back again	0	6	1	0	1	6	2	0
From New-York to Newport, the chief Town in Rhode-Island, and Providence Plantation in New England; and to Boston, the chief Town in Massachusetts Bay in New England; and to Portsmouth, the chief Town in New Hampshire in New England; and to Annapolis, the chief Town in Maryland; and from each of these Places to New-York	1	0	2	0	3	0	4	0
From Newport, Boston, Portsmouth, and Annapolis aforesaid, to any Place not exceeding 60 Miles; and back	0	4	0	8	1	0	1	4
And from those Towns not exceeding 100 English Miles; and thence back	0	6	1	0	1	6	2	0
From New-York to the chief Offices in Salem, and Ipswich, and in Piscataway, and to Williamsburgh in Virginia; and from those Places to New-York	1	3	2	6	3	9	5	0
From the chief Offices in Salem and Ipswich, Piscataway, and Williamsburgh aforesaid, to any Place not exceeding 60 English Miles; and the contrary	0	4	0	8	1	0	1	4
And from those Towns, not exceeding 100 English Miles; and the contrary	0	6	1	0	1	6	2	0
From New-York to Charles-Town, the chief Town in Carolina; and the contrary	1	6	3	0	4	6	6	0
From Charles-Town aforesaid to any Place not exceeding 60 English Miles; and the contrary	0	4	0	8	1	0	1	4
And all Letters and Packets from Charles-Town, to any Place not exceeding 100 English Miles; and thence back again.	0	6	1	0	1	6	2	0

And all Letters and Packets of Letters directed to, or from on board any Ship in any Port within his Majesty's Dominions, shall pay one Penny over and above the Rates chargeable, by the Act made the 9th of Queen Anne, concerning the Rates of Post-Letters.

By a Proviso in the abovesaid Act, all Merchants Accounts not exceeding one Sheet of Paper, and all Bills of Exchange and Invoices, and Bills of Lading are allowed without Rate; and also all Covers of Letters not exceeding a Quarter of a Sheet of Paper, sent by the Way of Vienna, Marseilles, Venice or Leghorn,

horn, to be sent to or from *Turky*, shall pass without Rate.
No Packet to be carried out of *Great Britain* in foreign Ships.

The Post to pay nothing for passing Ferries into *America*.

Inland Letters to pay where deliver'd.

All Letters on Board any Ships that touch in any Part, must, under the Penalty of five Pounds for every Offence, be deliver'd to the Deputy Post-Master of such Place, who pays to the Person delivering the same a Penny a Letter.

Carriers, Coaches, and Watermen, are not to carry Letters, unless they concern the Goods carried by their Cars, Waggons, or Pack-horses, at the same Time.

The Days of sending Letters to foreign Parts, are, Monday, to France, Italy, Spain, Flanders, Germany, Sweden, and Denmark.

Tuesday, to Holland, Flanders, Sweden, Denmark, Germany, and all Parts of England, Wales, Scotland, and Ireland.

Thursday, to France, Spain, Italy, and all Parts of England and Scotland.

Friday, to the Netherlands, Germany, Sweden, and Denmark.

Saturday, to all Parts of England, Scotland, and Ireland.

To Portugal, once in a Fortnight; and to the West-Indies, the last Thursday in every Month.

The Days foreign Mails are due at London:

Tuesday and Friday, from France and Holland.

Monday and Thursday, from Flanders.

Monday, Wednesday, and Friday, from Ireland.

Once a Week, from Portugal, Spain, &c.

CONFECTI O N E R.

CONFECTIONER, is an Artist, who, following the beautiful Rules of his most excellent Art, finds the Secret to preserve, by means of Sugar, or Honey, all Sorts of Fruits, Flowers, Herbs, Roots, and Juices, to that Perfection, as to make them retain their natural Form, Colour, Taste, Smell, &c. in all Seasons, and during a very considerable Time.

The Antients only confited with Honey; at present *Confectioners* seldom use any Thing else but Sugar, which they prepare different Ways, according to the different Sorts of *Confects* or *Confits* they design to make. Those different Preparations consist in the different Degrees of Consistence the Sugar acquires in boiling, before the Fruits, Herbs, Roots, Juices, &c. are mix'd with it; which Degrees of Consistence are reduced to four, under the four different Appellations, of *Icy Sugar*, *Pearl Sugar*, *Feather Sugar*, and *Breaking Sugar*.

Sugar is boil'd to the Consistence of *Ice*, if the middle Finger, being dipp'd into it, and applied afterwards to the Thumb, the *Sugar* remains immovable, and round, like a small Pea, upon the Thumb. It is said to be boil'd to a *Pearl*, when, by opening the Finger and the Thumb, which had been before join'd, the *Sugar* forms a small Thread. It is boil'd to *Feathers*, when a Spatula, having been dipp'd into it, and shaken afterwards, the *Sugar* flies into the Air; for if it runs yet, it is not done. And, lastly, it is reduced to the Consistence of *Breaking*, if a small Stick, which has been before dipp'd into cold Water, being dipp'd afterwards into the boiling *Sugar*, and dipp'd again into cold Water, the *Sugar* breaks, and grows dry in the Water; for if it be yet sticky, it is not of a right Consistence. Of these four Preparations of *Sugar*, all Sorts of *Confects* are made.

Note, It is indispensibly necessary to mix some Water with the *Sugar*, in the four abovemention'd Preparations, viz. about a Quarter of a Pint of Water for every Pound of *Sugar*; for if there was more, it must be evaporated, before the *Sugar* can acquire its due Consistence.

Confects are reduced to eight Kinds, viz. *Liquid Confects*, *Marmalades*, *Jellies*, *Pastes*, *Dry Confects*, *Conserves*, *Candies*, and *Dragees*, or *Sugar-plumbs*.

LIQUID CONFECTS, are those whose Fruits, either whole, in Pieces, Seeds, or Clusters, are confited in a fluid transparent Syrup, which takes its Colour from that of the Fruit boil'd in it. There is a good deal of Art in preparing these well; if they be too little sugar'd, and too little boil'd, they turn; and if too much sugar'd, or too much boil'd, candy.

The most esteem'd of the *Liquid Confects*, are

Plumbs, especially those call'd *Mirabels*, *Barberries*, *Quinces*, *Apricocks*, *Cherries*, *Walnuts*, *Rasberries*, *Verjuice*, *Peaches*, &c.

Note, That all Fruits for *Confects* must be a little green, and gather'd when they begin to ripen, except *Gooseberries*, *Cherries*, *Pears*, and *Quinces*; for these last must be ripe, and *confected* at a great Fire, except *Quinces*, which want but a slow Fire, as well as the Fruits, which are to be green; which Fruits must be boil'd in Water at a slow Fire, pouring upon them some Acid, as *Vinegar*, or *Spirit of Vitriol*, to render them of a still more beautiful green: But when they are in the Sugar, they must be dispatch'd at a great Fire.

Note, also, That there must be a Pound of Sugar to every Pound of Fruit, except *Cherries*, a Pound of which wants but Half a Pound, or three Quarters of a Pound of Sugar; but every Pound of *Quinces* wants a Pound and a Quarter of Sugar.

Note, further, That there are so many Books extant of this Art, that I'll content myself with giving here a few Preparations of *Confects*, especially those which are the most useful in a Family, and easiest done: As *Plumbs*, *Cherries*, *Rasberries*, *Quinces*, *Apricocks*, *Peaches*, &c.

All Sorts of *Plumbs*, for *Confects*, must be taken when they begin to ripen; they must be par'd, and put into cold Water, and afterwards into hot Water, ready to boil; where they must be left till they begin to grow green: Then they must be taken off the Fire, and left to grow cold, in the same Water. Being cold, they are to be taken out, and put into cold Water; from that Water, they must be thrown (after they have been well drain'd of their Water) into Sugar, which has been boil'd before to the Consistence of being blown or shaken to *Feathers*; where they must be boil'd at a great Fire, and skimm'd; which done, they are to be taken off the Fire, and left to grow cold, and put again on the Fire, and boil'd, till the Syrup has acquir'd the Consistence of *Pearl*; then they are to be taken off the Fire, and put into Pots, which Pots are to be cover'd, when the *Plumbs* are cold.

Cherries are preserv'd either with their Stones, or without: If with their Stones, the Stalk must be cut very short; if without, they must be pull'd out gently by the Stalk, without bruising the *Cherries*; which are to be gather'd very ripe, (the *Cherries* call'd *Morella's* here in *England* being the most proper for *Confects*, tho' in *France* they seldom preserve any other than those call'd here *Kentish Cherries*, among which, they chuse

chuse the largest, and ripest.) Sugar having been boil'd to the Consistence of being shaken into Feathers, the *Cherries* are put into it, boil'd at a great Fire, and skimm'd; which done, they are taken off the Fire, and left to grow cold; then put again on the Fire, and made to boil fast, and skimm'd again, if it be necessary. They are taken off the Fire, for the last Time, and put into Pots, which must be cover'd, when the *Cherries* are cold.

Rasberries must be gather'd as whole as possible, and when they are not yet quite ripe; their Tails, or Stalks, must be pull'd off, and they put into a glaz'd earthen Pan, flat at the Bottom; then Sugar, which has been boil'd to the Consistence of being shaken into Feathers, or Flakes, must be pour'd upon them, and having been left to grow cold, the whole Mixture is pour'd afterwards gently into a Copper Bason, and made to boil, and skimm'd, till the Syrup be reduced to the Consistence of Pearl; which done, they are taken off the Fire, and put into Pots.

Tho' *Walnuts* are seldom preserv'd in Sugar, here, in *England*; as they are very wholesome *Confects*, being a Sort of Restorative, which warms the Stomach, and helps Digestion; I do not believe it improper to inform my Pupil *Confectioner*, that it is made in the following Manner:

Take green *Walnuts*, while they are yet very tender; pare them to the white, that none of the green remains; as you pare them, throw them into cold Water; when they are all pared, you must make them boil very fast, till when you prick them with a Larder, or a Pin, they fall down of themselves, without sticking to the Pin: Then you take them off the Fire, and put them into cold Water; you squeeze them afterwards by the Middle, one by one, to drain them of their Water, and range them upon a dry Cloth; which done, you lard every one of them with a Clove, a Bit of Cinnamon, or a Piece of Lemon-Peel: Thus larded, they are thrown into Sugar which has been boiled to the Consistence of our first Preparation, and having been very well boiled, they are left to settle, for the Space of Half an Hour, and afterwards put again on a great Fire, till the Syrup be reduced to the Consistence of our second Preparation of Sugar; then taken off, and kept as the abovemention'd *Liquid Confects*.

For green liquid *Apricocks*, they must be gather'd green and tender, par'd, and as they are par'd, thrown into cold Water, and afterwards put into warm Water, where they are left till they begin to grow green; then they are taken off the Fire, and left to grow cold in the same Water: Being cold, they are put into fresh Water, out of which being taken afterwards, and drain'd, they are put into Sugar, reduced before to the Consistence of our first Preparation, where they are left to boil for a very short Space of Time; then they are taken off the Fire, and left to grow cold a little, and afterwards put again on the Fire, and left to boil till the Syrup be reduced to a Pearl Consistence: Then they are put into Pots, as other *liquid Confects*.

For ripe liquid *Apricocks*, they must be par'd as well as possible, without bruising or disfiguring them, and afterwards put into boiling Water, where they must boil gently for the Space of two Minutes; then they are taken off the Fire, and thrown into cold Water: While they are in the Water, Sugar is boil'd in Form of a Conserve, in which the *Apricocks* must boil two or three Gallops; which done, they are carried to the Stove, where they are left till the next Morning, keeping all the while a small Fire under it.

To preserve *Peaches*, they must be par'd, and the Stones taken out; as they are par'd, they are thrown into cold Water, from whence they are taken to be put into boiling Water, where they are made to boil at a slow Fire, till they begin to grow green; then they are taken off the Fire, and left to cool, and put afterwards into cold Water: While they are in it, Sugar is boil'd to the Pearl Consistence, into which the *Peaches*, after they have been drain'd of their Water, are put, made to boil, and skimm'd; then they are

taken off the Fire, and left to cool; being cold, they are put again on the Fire, and left to boil till the Syrup be reduc'd to the Consistence of our second Preparation of the Sugar; which done, they are taken off the Fire, and put into Pots.

Quinces must be taken very ripe, cut into Halves, or Quarters, par'd, and cleans'd of their Cores; as they are par'd, they are thrown into cold Water, and from thence into boiling Water, where they are left till they are grown soft; which done, they are left out, and put into cold Water: While they are in the fresh Water, Sugar must be boil'd according to our first Preparation, into which the *Quinces* are put, and made to boil at a slow Fire, covering them, if they be wanted very red; they must be taken off the Fire by Intervals, and put again upon it, till the Syrup has acquir'd the Consistence of Jelly; then they are put into Pots, and cover'd when cold.

The *Verjuice* must be taken when it begins to ripen, par'd, the Kernels taken out, and put afterwards into Water ready to boil, where they are left till they begin to grow green; then they are taken off the Fire, and left to grow cold in the same Water; and being put afterwards into Sugar, of but an indifferent Consistence, they are made to boil 7 or 8 Gallops, and then taken off the Fire.

Mulberries are taken a little greenish, their Stalks pull'd out, and preserv'd, afterwards, in the same Manner we have done *Cherries*.

MARMALADES, are a Kind of Pastes half liquid, made of the Pulp of Fruits or Flowers, that have some Consistence; as Apricocks, Apples, Pears, Plumbs, Quinces, Oranges, &c.

JELLIES, are Juices of several Fruits, wherein Sugar has been dissolv'd, and the whole, by boiling, reduced to a pretty thick Consistence; so as, upon cooling, to resemble a Kind of thin transparent Glue, or Size. *Jellies* are made of various Kinds of Fruits, especially Gooseberries, Apples, and Quinces. There are other *Jellies*, made of Flesh, Fish, Hartshorn, &c. but they are not to be kept long, being very subject to corrupt.

To make *Jellies*, you must take what Sort of Fruits you please, cut them into Pieces, and boil them in Water till they be very soft; they must be strain'd, with a strong Expression, through a clean Piece of Cloth, to extract from it as much Decoction as possible. A Quart of that Decoction must be put into a Bason, with a Pound of Sugar, and boil'd together, till the *Jelly* be form'd, which will be known, if by taking some of the Composition with a Spoon, it falls from the Spoon in large Lumps, and not in running or spinning. When it has acquir'd that Consistence, it must be taken off the Fire, and put into Pots.

Note, That all Sorts of red or green *Jellies* must be done at a slow Fire, and cover'd; and all white *Jellies* at a great Fire, and uncover'd.

Note, also, That Quinces want more Sugar than any other Fruit.

The *Jelly* of *Gooseberries* is made by straining them through a Napkin, or other Cloth, adding three Quarters of a Pound of Sugar to a Quart of the Juice, and boiling them together till the Mixture has acquired the Consistence abovemention'd.

PASTES, are a Kind of Marmalades, thicken'd to a Degree, by boiling, so as to assume any Form, when put into little Moulds, and dried in an Oven. The most in Use, are those of Gooseberries, Quinces, Apples, Apricocks, and Orange-flowers. Those of Pistachio's are much esteem'd; those of Ginger are brought from the *Indies*.

To make a *Paste* of *Cherries*, you must take the largest, and ripest you can find; take off the Stalks, and Stones, and boil a little the Fruit in a very small Quantity of Water; strain it afterwards through a Cullender, very full of small Holes, putting under it a Dish, to receive what passes through the Cullender, while

while you stir and squeeze the *Cherries*: When all the Fruit is strain'd through, it must be put into a very clean Copper Bason, and dried on the Fire, stirring it without Intermission, lest it should burn, and till your *Cherries* begin to dry, which you'll perceive by their sticking no longer to the Bason; and then you must mix with them Half, or three Quarters of a Pound of Sugar, in Powder; which done, you must spread your *Paste* upon Slates, giving it what Form you please, and carrying it afterwards to the Stove to dry.

To make a *Paste* of *Raspberries*, you must take them very ripe, pull off the Stalks, and strain them through a Sieve; proceeding afterwards as in the *Paste* of *Cherries*.

The *Paste* of *Apricocks* is made by paring them, when very ripe, taking out the Stones, boiling them in Water, draining them, straining them through a Sieve, and making a *Paste* like that of *Cherries*.

To make a *Paste* of *Quinces*, you must take them very ripe, pare them, take out the Cores and Stones, boil them in Water till they be very soft, strain them through a coarse Sieve, and afterwards make your *Paste* as you did that of *Cherries*.

If you want to make a *Paste* of *Flowers of Violets*, you must take a Pound of Marmalade of Apples, strain'd through a Sieve, and two Ounces of *Flowers of Violets*, (only the Leaves;) pound the *Violets* in a Stone Mortar, and when pounded mix them with the Marmalade; the whole Mixture must be dried in a Copper Bason, as you have done the other *Pastes*, and when dry, you must add Sugar to it, and have the whole dried afterwards in the Stove, like the other *Pastes*.

To make a *Paste* of *Orange-flowers*, you must take, as you have done for that of *Violets*, a Pound of Marmalade of Apples, strain'd through a Sieve, and Half a Pound of *Flowers of Oranges*, done and pounded like that of a *liquid Conserve*; then mix the *Orange-flowers*, thus prepar'd, with the Marmalade of Apples, dry the whole Mixture over the Fire, add Sugar to it, and have it dried in the Stove, like other *Pastes*.

There are likewise *Pastes* of Sugar, call'd commonly *Biskets*, and there is a great Variety of them; as common *Biskets*, *Biskets* of *Orange-flowers*, *Jessamine*, *Citron*, *Savoy Biskets*, common, royal, and curl'd *Massepains*, &c.

The common *Biskets* are made, by taking eight Eggs, or thereabouts, breaking them, and putting the Yolks and Whites together in a Copper Bason, and beating them for Half an Hour with a wooden Spatula; which done, a Pound of Sugar, in Powder, must be added to it, and the whole very well mix'd, and beat together for another Half Hour: Then the *Paste* must be left at Rest for some Time, and afterwards put into Moulds of Tin, or Paper, mixing with it some Sugar, in Powder, to glaze it. The Moulds, thus fill'd, are put into an Oven, not so hot as one could not bear his Hand in it, or into a Copper Stove, which must have lighted Coals a-top and underneath, but a little more a-top than underneath; where they must be left till the *Biskets* be very well risen, and assum'd a golden Colour; for then they are taken out of the Moulds, with the Point of a Knife, and put into a hot Place, till they be thoroughly dry.

To make *Biskets* of *Orange-flowers*, you must take new-laid Eggs, separate the Whites from the Yolks, and put them into a Stone Mortar; then stir them gently, adding, by Intervals, Sugar, and some *Orange-flowers*, which must be continu'd till the whole Mixture has thicken'd so as to be handled; which done, the *Paste* must be extended upon a Table with a Roller, putting always Sugar a-top and underneath, till it is brought to the Thickness the *Biskets* are propos'd to be: Then you must cut them into what Form you please, and put them upon a Sheet of white Paper, a little distant from one another, placing them afterwards in your Copper Stove, with a moderate Fire a-top and underneath: When they are done, they must be left to cool, and taken off the Paper when cold. When these *Biskets* are to be glaz'd, or ic'd, they must

be dipp'd, after they are cut, one by one, into Whites of Eggs, and afterwards into Sugar in Powder, covering them all over with it, and then they are put upon the Paper.

The common *Massepain* is made in this Manner: Take a Pound of Sweet Almonds, blanch them in hot Water, and put them afterwards in cold; take them out, dry them upon a Napkin, and pound them in a Stone Mortar, with a wooden Pestle, moistening them often with Whites of Eggs, and Rose or Orange-flower Water, till they be reduced to a *Paste*; which done, it must be thrown into Sugar, reduced to the Consistence of being shaken into Flakes, mix'd together, put on the Fire, stir'd continually with a Spatula, taking Care that nothing burn at the Bottom or Sides of the Bason; and when you perceive that nothing sticks to it, you must take out your *Paste*, and spin it in what Form you please, and carry afterwards your *Massepains* to the Oven to be done.

To make *curled Massepains*, you must blanch and pound Sweet Almonds as you have done the others, adding to them, by Degrees, Sugar, in Powder, and mixing them together till you have made a *Paste* fit to be handled, which you must dispose on a Sheet of Paper, in what Form you please; this done, you must have them bak'd in your Stove, by one Side at first, and when they are cold you must have the other Side bak'd likewise, taking them off the Paper while yet hot.

The *Massepain* of *Oranges*, is made by blanching and pounding a Pound of Sweet Almonds, and throwing them afterwards into three Quarters of a Pound of Sugar, reduced to the Consistence of being shaken into Flakes, and having mixed them well together, you must take about Half a Pound of Pulp of *Oranges*, confect'd liquid, which you must pound, (after it has been well drained of the Syrup) and mix with the Almonds: Then you must put the Mixture into a Bason, on the Fire, stirring it all the while, till you perceive that the *Paste* sticks no longer to the Bason; which done, you must take out the *Paste*, dispose it in what Form you please on a Paper, and put it to be baked on one Side, and when that Side is cold, you must have the other Side baked in the same Manner.

DRY CONFECTS, are those, whose Fruits, after having been boil'd in the Syrup, are taken out again, and put to dry in an Oven. These are made of so many Kinds of Fruits, that it would be hard to explain them all. The most considerable are, *Citron* and *Orange-Peel*, *Plumbs*, *Pears*, *Cherries*, *Apricocks*, &c.

Oranges are also often preserv'd whole, *i. e.* without being cut in Pieces; which is done in this Manner: You must pare *Oranges* as thin as possible, and after you have slit them at the Eye, put them in boiling Water, and make them boil for about Half a Quarter of an Hour; which done, take them out, and put them in cold Water; then, with a Spoon made for that Purpose, or any other Spoon which can be introduced into the *Orange* without disfiguring it, take out all the Pulp, and throw them into other cold Water, and afterwards into boiling Water, making them boil as before, and again into boiling Water, repeating the same Operation three Times successively; and, lastly, putting them into the finest Sugar, reduced to the Consistence of our first Preparation, where they must boil for Half a Quarter of an Hour, and afterwards be taken off the Fire, and left to cool: When cold, they are put again on the Fire, to boil till the Sugar be reduced to the Consistence of being shaken into Flakes; which done, they must be taken off the Fire, and when cold, and well drain'd of the Sugar, dispos'd upon clean Straw.

Note, That there is as much Sugar wanted to preserve *Oranges* and *Citrons*, that the Fruit may swim in it; but what's left of it, may serve for other Things.

Rocks of *Oranges*, are made of *Oranges* par'd and cleans'd, and boil'd as above; with this Difference, that they are cut into small narrow Pieces, and dispos'd upon the Straw in Form of *Rocks*.

Chips of Oranges, are boiled in four different Waters, for a Quarter of an Hour each Time, and put as many Times into cold Water; then they are preserv'd as those abovemention'd.

Citrons are par'd, and put in cold Water, like *Oranges*, and after they have been cut in what Form we please, they are boil'd in Water till they grow soft; which done, they are taken out, put in cold Water, and afterwards preserv'd like *Oranges*.

Apricocks are confected, by taking small green *Apricocks*, very tender, paring them, and having them done in hot Water, without boiling, till they begin to grow green; for then they must be taken out, and put in cold Water, and after they have been very well drain'd, boil'd in Sugar of the Consistence of our first Preparation, till the Syrup be reduced to the Consistence of our second Preparation of Sugar; then they are put in an earthen Pan, where they are left for eight Days: That Time expir'd, they are put in a Copper Basen, and boil'd till the Syrup be once more reduced to a Pearl Consistence; which done, they are put again into the earthen Pan, and when cold they are dispos'd on Slates, and put to dry in the Stove, where they are often turn'd, till they be thoroughly dry. Then they are put in Boxes, upon Paper, so that they may not touch one another.

For *Cherries*, after the Stones have been taken out, they must be boil'd in a small Quantity of Water, that they may pour out their Juice; and when they have been well drain'd, they are boil'd in Sugar reduced to a Pearl Consistence, till the Syrup has acquir'd, likewise, a Pearl Consistence; which done, they are put in an earthen Pan; where they are left for eight Days; after which, they are once more boil'd till the Syrup has acquir'd the same Consistence as before: When they are done, they are left to grow cold, when cold they are dispos'd upon Slates, and put to dry in the Stove, where they must be turn'd twice every Day, if they want it, till they be quite dry: Being dry, they are put in Boxes upon Paper, making one Bed of Paper, and another of *Cherries*, and thus successively, till they are all pack'd up. The Paper must be chang'd at least every Fortnight, and if they be kept long, and the Paper under them is found wet, it must be chang'd likewise, as well as that under all Sorts of dry Confects, if we design to keep them long. They must even be put, from Time to Time, to the Stove, especially when they want it.

Plumbs must be neatly par'd, and as they are par'd thrown into cold Water, and afterwards into other Water ready to boil, where they must be left on the Fire, cover'd, and without boiling, till they grow green; which done, they are thrown again into cold Water, and afterwards preserv'd, and dried like *Cherries*. All Sorts of *Plumbs* are done in the same Manner, as also *Peaches*.

CANDIES are ordinarily entire Fruits, and Flowers, candied over with Sugar, after having been boil'd in the Syrup; which renders them like little Rocks crystalliz'd, of various Figures and Colours, according to the Fruits inclos'd within them. The best *Candies* are brought from *Italy*.

Oranges are candied whole, by taking whole *Oranges* newly confected, and not much loaded with Sugar, and putting them in Sugar reduced to the Consistence of being shaken into Flakes; but the Vessel which contains the Sugar must be flat, that the *Oranges* may not touch one another, nor the Bottom of the Pan: Then they are carried to the Stove, where they are left twice 24 Hours, which being expir'd, they are taken out, and put upon Straw to dry. *Apricocks*, *Peaches*, and all other Fruits, are candied in the same Manner.

Orange-flowers are candied, by taking the Buds of those Flowers, when they are not yet quite blown, putting them in a flat earthen Pan, that they may not be too much crowded, and pouring upon them Sugar reduced to the Consistence of being shaken into Flakes: This done, they are carried to the Stove, where they are left, like the *Oranges*, for two Days and two Nights,

and afterwards taken out, and put on Straw to dry. Buds of *Flowers of Violets*, with their Stalks, are candied in the same Manner; as well as all other *Flowers*.

CONSERVES, are a Kind of dry Confects, made with Sugar, and Pastes of Flowers, Fruits, &c. The most usual are those of *Orange-flowers*, *Violets*, *Jessamine*, *Pistacio's*, *Citrons*, and *Roses*.

To make the *Conserve of Orange-flowers*, you must take a small Handful of those Flowers, separated from their Buds, and cut them to Pieces; plunge them afterwards, with a Spoon, or Spatula, into a Pound of Sugar, reduced before to the Consistence of being shaken into Flakes; when they begin to catch a-top, they must be dress'd upon Paper with the Spoon or Spatula.

The *Conserve of Pistacio's*, is made by pounding the *Pistacio's*, putting them afterwards in Sugar reduced to the Consistence of being shaken into Flakes, stirring them together, and dressing the *Conserve*, after 'tis done, upon Paper.

To make the *Conserve of Cherries*, you must take out the Stones, and make the Fruit boil in a small Quantity of Water; when boil'd, you must drain them, cut them to Pieces, and throw them afterwards in Sugar reduced to the Consistence of being shaken into Flakes; then dress your *Conserve* upon Paper. The Sugar must be off the Fire when you throw the Fruit into it.

To make a *Conserve of all Sorts of Fruits*, take *Cherries* and *Apricocks*, without their Stones; *Plumbs*, *Peaches*, and green *Almonds*, and cut them all into small Pieces, and throw them afterwards into Sugar reduced to the Consistence of being shaken into Flakes; then dress the *Conserve* as you have done the others.

Conserve of Roses, is made by taking *Red Roses*, in Powder, dissolving them in the Juice of Lemon, and mixing the Dissolution with Sugar reduced to the Consistence of being shaken into Flakes.

To make the *Conserve of Violets*, you must take the Leaves of Flowers of *Violets*, pound them in a Mortar, strain them through a Cloth, to extract the Juice, and mix that Juice with Sugar reduced to the same Consistence as above; when you dress the *Conserve*, you must mix with it some Juice of Lemon, to give it a livelier Colour.

SUGAR-PLUMBS, or *Dragees*, are a Kind of little dry Confects, made of small Fruits, or Seeds, little Pieces of Bark, or odoriferous and aromack Roots, &c. incrustated, and cover'd over with a very hard Sugar, ordinarily very white. Of these, there are various Kinds, distinguish'd by various Names; some made of *Rasberries*, others of *Barberries*, *Melon-seeds*, *Pistacio's*, *Filberds*, *Almonds*, *Cinnamon*, *Orange-peel*, *Coriander*, *Aniseeds*, *Carraways*, &c.

There are two different Sorts of *Sugar-Plumbs*, viz. *pearled Sugar-Plumbs*, and *glazed, or iced Sugar-Plumbs*. The *pearled Sugar-Plumbs* are made with Sugar reduced to the Consistence of our second Preparation; and the *glazed, or iced Sugar-Plumbs*, with that reduced to the Consistence of our first Preparation.

To make all Sorts of *Sugar-Plumbs*, there must be had a large Copper Basen, with two Handles to it, suspended with two Cords, at the Height of the Wasteband; under which, there must be an earthen Pan, or Chafing-dish, with a moderate Fire, to make the *pearled Sugar-Plumbs*: There is wanted, besides, a Kind of Funnel, through which the Sugar must pass, to make *pearled Sugar-Plumbs*.

Pearled Almonds, are made of Sweet *Almonds*, very well dried over the Fire, pouring upon them, through the Funnel, the Sugar, reduced to the Consistence of our first Preparation, shaking the Basen all the while, and turning the *Sugar-Plumbs*, that they may all take, as near as possible, an equal Quantity of Sugar. They may also be stirr'd with the Hand, and parted, if they stick together. The Syrup can likewise be stopp'd running, to give Time to the *Sugar-Plumbs* to dry. The

The *glazed Almonds* are made, by pouring upon them in the *Bafon*, with a *Ladle*, about a *Quarter* of a *Pint* at once of *Sugar*, reduced to the *Consistence* of our first *Preparation*, stirring often the *Almonds* with

the *Hands*; and leaving them sometimes at *Rest*; *Carraways*, *Aniseeds*, &c. are prepar'd in the same *Manner*, after they have been very well cleans'd of all their *Dust*, *Stalks*, &c.

COOKERY.

COOKERY, is the Art of preparing Meats for Food, that they may be both wholesome, and agreeable to the *Palate*.

The *Art of Cookery* was at first very simple, and invented only to render certain Sorts of Meats, especially *Flesh* and *Fish*, otherwise very insipid, and even offensive to the *Stomach*, palatable, and of easy *Digestion*: Therefore that Art consisted, then, wholly in boiling and roasting. But, in Process of Time, our *Taste* having been deprav'd, as well as our other *Senses*; *Incontinence*, *Extravagance*, and *Luxury*, have refin'd *Cookery*, as they have done all the other Arts invented to gratify our *Sensuality*; and none but the poorest among *Mankind*, and but too often now, even those, can't eat *Meat* without *Sauce*; and that bad *Custom*, so prejudicial to our *Health*, and so expensive in *Families*, has so far prevail'd among us, for several *Ages* past, that it is become of an indispensable *Necessity*: And as almost every Body wants to know how to dress their *Victuals* in the best *Manner*, though every Body is not in a *Condition* to hire a *Cook* for that Purpose, I'll be theirs, for once, and inform them how all Sorts of Meats, viz. *Butchers Meat*, *Fowls*, *Fishes*, *Pulse*, &c. are to be dress'd, to flatter the *Palate*, and excite the *Appetite*. I'll begin with the *Manner* of making *Soups*, or *Broths*, since it is the first Dish which commonly comes upon the *Table*, of those who love those Sort of Dishes, and who pretend to live in an elegant *Manner*, here in *England*; for in other Countries, especially in *France*, *Soup* is one of the most common Dishes, but not always those delicious *Soups* I am going to make.

Before I can pretend to make *Soups* of any Kind, I must make a *Broth*, which will serve to fill all the Pots I may chance to have on my *Fire*, either for *Soups*, *Entrees*, or *Entremets*.

To make that *Broth*, I'll take that Piece of *Beef* call'd in *England* the *Mouth-Buttock*, some *Mutton*, and a few *Fowls*, regulating the *Quantity* of *Meat*, according to the *Quantity* of *Broth* I want: I'll put that *Meat* in a *Pot*, with a *Bunch* made of *Parsley*, young *Onions*, and *Thyme*, ty'd together, and a few *Cloves*; I'll fill the *Pot* with *Water*, keeping always warm *Water* ready to re-implacé that of the *Pot*, which evaporates in boiling; and when the *Meat* is boil'd almost to *Rags*, I strain the *Broth* through a *Napkin*, to use it as *Occasion* serves; and for roast *Meat*, after I have extracted the *Gravy*, I put it to boil with such a *Bunch* of *Herbs* as that abovemention'd, have it well boil'd, strain it, and keep it, to colour all my other *Broths*.

Note, That these Sorts of *Broths* may be eaten without any other Addition, except *Pulse*, if one likes it, viz. *Cabbages*, *Turnips*, &c. which *Pulse* are to be boil'd in a *Pot* a-part, and after they are well drain'd of their *Liquor*, they are put in the *Broth*, to boil two or three *Gallops* more, and afterwards put in a *Dish*, and carried to *Table*.

The other delicious *Broths*, which none but the *Rich* can afford, are,

The *Bisk* of *Pigeons*; the *Pottage* of *Health*; *Partridge Broth* with *Coleworts*; *Duck's Pottage* with *Turnips*; *Pottage* of *Fowls* with *Asparagus*; *Jiblet Pottage*; *Pease Pottage* with a green *Goose*; *Pottage* of *Fowls* with green *Pease*; *Pottage* of *Pigeons* with green *Pease*; *Pease Pottage*; *Pottage* of *Hares*;

Pottage of a *Nuckle* of *Veal*; *Pottage* of a *Breast* of *Veal*; *Pig's Pottage*; *Pottage* of hash'd *Mutton*; *Pottage* of a *Capon* with *Rice*; *Pottage* of *Fowls* with *Rice*; *Pottage* of a fried *Calf's Head*; *Pottage* of fried *Mutton* with *Turnips*; *Pottage* of roasted *Woodcocks*, &c.

To make a *Bisk* of *Pigeons*, after they have been well clean'd, and truss'd; we blanch them, i. e. we put them in a *Pot*, with warm *Water*, or *Broth*; and cover them well, to be blanch'd; afterwards we put them in another *Pot*, with the best of our *Broth*; and a small *Bundle* of fine *Herbs*; seasoning it with *Pepper*, *Salt*, and *Cloves*. They must boil slowly for *Half*, or three *Quarters* of an *Hour*, and then they are fit to be carried to *Table*.

The *Pottage* of *Health*, is made with *Capons* boil'd in a *Pot* with a sufficient *Quantity* of our *Broth*, well season'd with *Salt*, and fine *Herbs*. The *Pot* must be well cover'd, lest the *Capons* should turn black.

We make the *Pottage* of *Partridges* with *Coleworts*; by putting *Partridges*, well larded, to boil with *Coleworts* in a *Pot*; when they are almost done, we throw into the *Pot* some *Fat* of *Bacon*, melted in a *Frying-pan*, and season it, when ready to be carried to *Table*, with *Pepper* and *Cloves* beaten.

The *Pottage* of *Ducks* with *Turnips*, is made of *Ducks* larded, and half fried in *Lard*, or which have took three or four *Turns* on the *Spit*; then they are put in a *Pot*. The *Turnips*, after they have been cut in *Pieces*, and flour'd, are also fried in *Lard*, till they are very brown; then they are put in the same *Pot* with the *Ducks*, and left to boil slowly in *Water*, till the *Ducks* are done. Before the *Pottage* is carried to *Table*, it may be season'd with a few *Drops* of *Verjuice*.

To make the *Pottage* of *Jiblets*, after they have been well scalded, they must be fried like a *Fricassé* of *Fowls*, and afterwards put in a *Pot* with our best *Broth*, where they are left to stew at a slow *Fire*, for three *Quarters* of an *Hour*.

To make the *Pottage* of *Fowls* with *Colliflowers*, the *Fowls* must be boil'd in *Broth*, at a slow *Fire*, and well season'd with *Cloves* and *Pepper*, and a small *Bundle* of *Parsley*, *Thyme*, and young *Onions*. The *Colliflowers* must be boil'd in another *Pot*, and when the *Fowls* are very well done, the *Pottage* must be pour'd on toasted *Bread*, and the *Dish* garnish'd with the *Colliflowers*. Some *Juice*, or *Gravy* of *Mutton*, may be added to the *Broth*, to render it richer.

To make *Pease Pottage* with a green *Goose*, we put our green *Goose* to boil very well in a *Pot*, and our *Pease* in another; when the *Pease* are well mash'd, we put in it a *Bundle* of sweet *Herbs*, and fat *Bacon* melted in a *Frying-pan*: We have *Bread* stew'd in the *Broth* of the green *Goose*, and pour the *Pease Pottage* upon it.

The *Pottage* of green *Pease* with green *Goose*, is made with green *Goose*, well season'd, and boil'd in *Broth*; the green *Pease* are pass'd through the *Frying-pan*, and afterwards put in a *Pot* a-part, with *Broth*; and when they are well done, they are mix'd with a sufficient *Quantity* of the *Broth* of the green *Goose*, and carried to *Table*. You may garnish the *Dish* with the *Jiblets* of the *Goose*, and some boil'd *Lettices*.

To make the *Pottage* of *Fowls* with green *Pease*, we put the *Fowls* to boil with *Broth*, and skim them well; then pass the green *Pease* through a *Frying-pan*, with *Butter*, or melted *Bacon*; and afterwards have them

them stew'd a-part, with Lettices: And when the Fowls are done, we mix the Broth and Pease together, and send it to the Table.

The *Pottage of a Nuckle of Veal*, is made without any other Ceremony than that of having it boil'd in Broth, with some white Succory, taking great Care to skim it well.

Pig's Pottage, is made by cutting the Pig into five Pieces, putting it in a Pot with good Broth, a Bundle of sweet Herbs, and a Piece of pickled Pork, and leaving it to boil at a slow Fire till it is well done.

To make the *Pottage of hash'd Mutton*, we hash a Leg of Mutton with Beef Marrow, and put it to stew in a Pot, with a sufficient Quantity of Broth, till it is well done.

To make the *Pottage of a Capon with Rice*, we put our Capon to boil in Broth well season'd; we pick the Rice, wash it, and have it dried before the Fire; then put it to boil slowly in a very good Broth, with a Blade or two of Mace; and when the Capon and Rice are done, we mix them together, and send them to the Table.

Note, That all these Sorts of *Pottages*, or *Soups*, are seldom serv'd without some toasted Bread, which has been stew'd in some Broth, before it is carried to the Table.

Note, also, that the Fowls employ'd to make these Sorts of *Soups*, are commonly serv'd whole a-top of the *Soup*, and the Dish garnish'd either with Chicory, Mushrooms, Truffles, Capers, or Onions, according to the different Sorts of *Soups*.

There are, also, stuffed *Soups*, or *Pottages*, viz. *Pottage* of stuffed Capons; of stuffed Fowls; of stuffed Pigeons; of stuffed Ducks; of stuffed Breast of Veal; of stuffed Calf's Head; of stuffed Leg of Mutton; of stuffed green Geese; of stuffed Partridges; and of stuffed Turkey.

The *Pottage of stuffed Capon*, is made by taking out the Bones of the Capon through the Neck, filling it with Capon or other such Flesh, hash'd with Beef Marrow, and well season'd; then the Capon, thus prepar'd, is put to boil slowly in very good Broth, and when done, it is serv'd whole, like other *Pottage*.

We make the *Soup*, or *Pottage of stuffed Fowls*, in raising up the Skin with our Fingers, with a Stuffing made of Veal, or White of Capons, hash'd with Beef Marrow, and Yolks of Eggs: Thus stuffed, we put it to boil slowly in Broth, with a Bundle of sweet Herbs, till it is done; then we carry it to the Table whole, with the Broth, and the Dish garnish'd with the Bottoms of Artichokes and Asparagus, or some other Furniture, according to the Season of the Year.

To make the *Pottage of stuffed Pigeons*, the Pigeons are prepar'd as we have done the Fowls, and the Process is the same in every Particular, except that we often cover the Pigeons, after they are stuffed, and before they are put in the Broth to boil, with a thin Slice of very good fat Bacon, without Lean.

To make a *Soup*, or *Pottage of stuffed Ducks*, we must take out the Bones by the Neck, and fill the Inside with Mushrooms, Truffles, Sweetbreads, and other such Things; then we make our Stuffing of a Piece of lean fresh Pork, hash'd with Yolks of Eggs raw, Parsley, young Onions, and Spices: We sew up the Ducks, and put them to boil at a slow Fire, in very good Broth, till they are done.

To make the *Pottage of stuffed Breast of Veal*, we open it at the lower End, and stuff it with some fat Meat, Crumbs of Bread, and all Sorts of sweet Herbs hash'd together, and well season'd: We put the Breast of Veal, thus stuffed, to boil slowly, in very good Broth, with Capers, Chicory, or other Herbs hash'd, and when done, we send it to Table.

The *Pottage of stuffed Calf's Head*, is made by taking off the Skin of the Calf's Head, and boiling the Head afterwards; when done, the Bones must be separated from the Flesh, and the Eyes and Brains taken

out; then the Flesh is hash'd with some Marrow, and mix'd with Yolks of Eggs raw, with which the Head is stuffed, sew'd up afterwards, the Eyes and Brains put in their Places, and the whole boil'd in good Broth. While the Head is boiling, you must have Calf's Feet half boil'd in Water, after which, they are to be cut in Halves, and fried in Butter, or melted Bacon; this done, they must be put with Capers in the Pot where the Calf's Head is boiling; and when they have boil'd together for near Half an Hour, the *Soup* is fit to be carried to Table.

The *Soup*, or *Broth of stuffed Lamb's Head*, is made with a Lamb's Head prepar'd in the same Manner we have done the Calf's Head: The Flesh, when done, is to be hash'd with Bacon, and very well season'd; the Stuffing is made with a Piece of Lamb's Liver, Marrow, Parsley, and sweet Herbs, the whole mix'd well together, and well boil'd in good Broth.

We make the *Soup*, or *Broth of a stuffed Leg of Mutton*, by taking off the Skin, hashing the Flesh very fine, with Marrow and Bacon well season'd, stuffing the Skin of the Leg of Mutton with it: When it is sew'd up, we put it to boil with some Turnips, Capers, and a small Bundle of sweet Herbs, till it is done.

The *Pottage*, *Soup*, or *Broth of stuffed green Geese*, is made by taking off the Merrythought, stuffing it with what Stuffing we please, flouring it, and putting it to boil in good Broth.

To make the *Pottage*, or *Soup of stuffed Partridges*, we take off the Merrythoughts, and stuff them with Veal, and Capon's Flesh, hash'd together, and well season'd with Salt, Spices, and sweet Herbs: Then we put our Partridges in Broth, and have them well done.

To make the *Pottage of stuffed Turkeys*, we take off the Merrythoughts, and stuff them with Veal and Marrow, very well hash'd together, and season'd: We mix our Stuffing with Yolks of Eggs raw, and put the Turkeys to boil in Broth, with Mushrooms, Truffles, and a small Bundle of fine Herbs, made of Parsley, young Onions, and Thyme.

Having made our *Soups*, we'll pass to the making of *Entrees*, *Ragouts*, or *Fricassees*, viz. marin'd Loin of Veal; *Ragouts* of Ducks, of Pigeons, of Fowls, of Neat's, Pork's, Mutton's, and Calf's Tongues; of Partridges, of a Neck of Veal, of a Fillet of Veal, of a Loin of Deer, and of a Calf's Liver. White *Boudin*, *Servelats*, *Civé* of Hares; Turkey, Goose, and Pig, *à la daube*; *Fricassee* of Fowls, of Pigeons, and of a Loin of Veal; Breast of Veal fried, Loin of Veal at the *Sauce Robert*, Capon with Oysters, *à la mode* Beef, stew'd Fowls, Calf's Head fried, Pork Pye, Tart of Marrow, Pigeon Pye, Veal Pye, Capon Pye, *English Pye*, and Beef Steaks.

To make a *Ragout of Ducks*, they must be larded, fried, very well season'd with Salt, Pepper, Spices, young Onions, and Parsley, and put in a Pot to stew, with a little of our best Broth.

To make a *Ragout of Pigeons*, they must be larded, fried in Lard, season'd, and put to stew in a little of our best Broth, with a small Bundle of fine Herbs.

To make a *Ragout of Fowls*, they must be larded, cut in Halves, season'd, and put to stew in Broth, with a small Bundle of fine Herbs, Truffles, Mushrooms, and a few small Pieces of roasted Pork, to give them a Relish.

To make a *Ragout of a Neat's Tongue*, it must be larded with big Lardons, very well season'd, and put in a Pot to stew; when almost done, it must be left to grow cold, then put upon a Spit at the Fire, and basted with the Sauce wherein it has been stew'd, till it be quite roasted; which done, it is taken off the Spit, and put to stew very slow, in the Dripping, with some pounded Onions, Bacon, and a little Vinegar.

To make a *Ragout of Pork's Tongues*, they must be fried in Lard, very well seasoned, and put in a Pot with Broth, to stew; when almost done, there must be mixed with it a pounded Onion, Truffles, and a Glass or two of White Wine, leaving all this to stew together, till the Tongues are quite done.

A *Ragout of Mutton's Tongues*, is made by taking several Mutton's Tongues, very well pickled, frying them, and putting them to stew in Broth, with an Onion or two, Mushrooms, Truffles, and Parsley, the whole very well season'd with Salt and Pepper; and a little Verjuice, or Vinegar.

To make a *Ragout of a Turkey*, it must be larded, cut in Pieces, floured, fried, and put afterwards to stew in Broth at a slow Fire, till the Sauce grows short.

To make a *Ragout of a Pig*, it must be cut in four Quarters, well seasoned, and fried; when done, it is garnish'd with Capers, Truffles, and Mushrooms.

To make a *Ragout of Calves Feet*, when they are well done, they must be floured, and fried in Lard, and afterwards put to stew in Broth, with Verjuice, a small Bundle of fine Herbs, and a Piece of Lemon, the whole well season'd, and the Sauce short. They must be carried to Table with Capers.

A *Ragout of double Tripes*, is made by cutting the Tripes very small, frying them in Lard, with Parsley and Onion, and having been season'd with Capers and Vinegar, they are left to stew a little while in the Frying-pan.

To make a *Ragout of a Fillet of Veal*, it must be larded, and a little more than half roasted on a Spit, and afterwards put to stew with very good Broth, a small Bundle of fine Herbs, Pepper, and Cloves, in a Pot cover'd close. When done, the Sauce must be thicken'd with Yolks of Eggs well beaten, with a little Verjuice, or the Juice of a Lemon, or some Vinegar.

To make a *Ragout of a Loin of a Deer*, after it has been larded, and half roasted, it must be basted till it is quite done, with a Sauce made of Pepper, Vinegar, and Broth, and the Sauce thicken'd afterwards with Crumbs of Bread.

To make a *Ragout of a Hare*, after it has been half roasted, it is cut in Pieces, fried, and then put to stew slowly in a Dish, with the Juice of Oranges, Capers, and Crumbs of Bread.

To make *à la mode Beef*, you must take a Piece of the Buttock, beat it well, and lard it; then it must be put in a Pot, with good Broth, Pepper, beaten Cloves, and a small Bundle of fine Herbs; and the Pot being cover'd close, is put on a slow Fire, where it remains till the Beef is done.

To dress *Capons with Oyster Sauce*, the Capon must be larded, *i. e.* the Fore and Hind-part cover'd with a thin Slice of Bacon, and over it a butter'd Paper; then it is put to roast; the Oysters must be fried with the Dripping of the Capon, and season'd, while frying, with Mushrooms, an Onion, and a small Bundle of fine Herbs: When they are well fried, they are put in the Body of the Capon, the Bundle of Herbs excepted, before it is quite done.

To make a *Ragout of a Calf's Liver*, it must be larded with big *Lardons*, well season'd, with a small Bundle of sweet Herbs, Orange-peel, and Capers, and put in a Pot to stew with some good Broth.

To make a *Stew of Fowls*, they must be cut in small Pieces, and put to stew with very good Broth, White Wine, and fresh Butter, and well season'd with Onions and Parsley hash'd together; when they are done, the Sauce must be thicken'd with Yolks of Eggs well beaten with Verjuice, or Vinegar.

To fry a *Calf's Head*, after it has been well boil'd, the Bones must be taken off; then make a Batter, or liquid Paste, with Flour and Eggs, which must be season'd well with Pepper and Salt, and in which the Flesh of the Head must be dipped, and then fried in Lard: When well fried, it must be serv'd with Slices of Oranges, and fried Parsley, round the Dish.

To fry *Calves Feet*, after they are well boil'd, they are cut in small Pieces, and fried with Butter; after they have been turn'd three or four Times in the Frying-pan, we throw into it Onions and Parsley, well hash'd together, a little good Broth, and season well the whole: When they are ready to be carried to the Table, we beat some Yolks of Eggs with Verjuice or

Vinegar, in Proportion to the Meat, *viz.* to four Calves Feet, three Yolks of Eggs; with which we thicken the Sauce.

To hash roasted Mutton, the Meat must be hash'd as fine as for minced Pies; which done, it must be put to stew slowly with some Gravy, an Onion, some fresh Butter, and Crumbs of Bread. Hashed Partridges are prepar'd in the same Manner.

To make a *Pigeon Pye*, we season well the Pigeons with Salt and Pepper, then put them in the Paste, with Beef Marrow, Asparagus, Mushrooms, Bottoms of Artichokes, Yolks of Eggs, Truffles, and Grains of Verjuice or Gooseberries.

To make a *Veal Pye*, it must be hash'd well with twice as much Marrow, or Beef Suet, well season'd, and afterwards put in Paste.

To make a *Capon Pye*, all the Bones of the Capon being taken out, it must be stuffed with Cocks Combs and Stones, Mushrooms, Truffles, Marrow, Capers, and Veal Sweetbreads; and being well seasoned, it is put in Paste.

Note. That all the different Ragouts, Fricassées, Pies, &c. above describ'd, can serve for *Entrees*, in great Entertainments, or Feasts; and that for the second Course in those Entertainments, can be serv'd some of the following Dishes, *viz.* Pheasants, Hares, Quails, Partridges, Capons, young Pigeons, Chickens, Turkeys, green Geese, Plovers, Woodcocks, Loins of Veal, Loins of Deers, Pigs, wild Geese, wild Ducks, Surloin of Beef, &c. All these different Sorts of Meat are suppos'd to be roasted.

To roast a *Pheasant*, there must be left to it a Wing, the Neck, and the Tail; and after it is well larded; the Wing, Tail, Neck, and Head, where the Feathers are left, must be wrapped in buttered Paper, then spitted, and roasted; the Paper must be taken off before the Pheasant is carried to Table.

A *Hare*, before it is put to roast, must be rubbed over with its Blood, and larded; when done, it is served with a sweet Sauce, made of White Wine, Sugar, Mace, &c. or with a *Poivrade*.

A *Quail* is roasted *barded*, *i. e.* covered before and behind, with a thin Slice of Bacon, and wrapped in Vine-Leaves, in their Season.

Partridges are roasted larded.

A *Capon*, if it be very fat, is roasted covered only with a buttered Paper; and with an Onion, salted and peppered, in the Body.

Chickens are roasted either larded, or barded.

Ducks are roasted with four Roses of Lardons; one on each Wing, and one on each Leg: Some put another on the Stomach.

Lamb is roasted as it comes from the Butcher, without any other Preparation; but after it is roasted, you may throw upon it, if you please, some Crumbs of Bread, Salt, and Parsley.

Green Geese are roasted without being larded, but you must make under them a Stuffing, with the Liver, Thyme, Parsley, &c. hash'd well together, and well season'd; and fried afterwards in Butter, with a few Yolks of Eggs.

A *young Turkey* is roasted larded.

A *Plover* is roasted larded, and carried to Table with a Toast, and Sauce under it.

A *Haunch of Venison* is roasted larded, and a *Poivrade* made under it, when carried to Table, or a sweet Sauce.

An *Ortolan* is roasted *barded*, and wrapp'd in Vine Leaves, in their Season; in the Spring it must be drawn.

A *Woodcock* is roasted larded, and a Toast made under it, while roasting, with which, and some Slices of Seville Oranges, it is carried to Table.

A *Loin of Veal* is roasted larded, and a Ragout made under it with Verjuice, Water, Orange-peel, and Crumbs of Bread.

A *wild Goose*, as well as a tame one, is roasted larded on the four Quarters, in Form of Roses.

A *Fawn* is roasted, larded, and with its Head on, which must be wrapp'd in butter'd Paper, lest the Hairs should be sing'd. It is carried to Table with a *Poirade*, or sweet Sauce.

Note, That the Sauce call'd *Poirade*, is made with Vinegar, Salt, Onion, and Lemon, or Orange-peel, boil'd together. The *green Sauce* is made with green Corn, a Toast burnt with Vinegar, some Pepper, and Salt; the whole pounded very well in a Mortar, and strain'd through a Cloth. *Pigs* and *Lamb* are serv'd with this Sauce. The *Rabbit* with the Juice of Oranges, and Pepper. The *Plover* with a Sauce made of Verjuice, Lemon-peel, Vinegar, Pepper, Salt, and Onion; without forgetting a Toast.

Note, also, That the *Entremets* for great Entertainments, are, *Pig's Ears*, and *Feet*; *Venison Pasty*; *fried Sweetbreads*; a *Ragout of Ham*; *Ham roasted*; *Colliflowers*; a *Ragout of Larks*; *Jellies of Hartshorn*; *green, yellow, blue, &c. Jelly*; *blanc Manger*; *Fritters of Marrow, Apples*, and of *Artichokes*; *Tarts of Franchi panni*; *fried and boiled Artichokes*; *stuffed*, and *fried Mushrooms*; *Tarts of Pistacio's*; *Spanish Cardoons*; *Asparagus, &c.*

To dress *Pig's Ears*, and *Feet*, after they have been well boil'd, they must be cut in Pieces, fried in Butter with Onions, and well season'd; when fried, two or three Spoonfuls of good Broth are put into the Pan, and when they have been left to stew for five or six Minutes, the Sauce is thicken'd with Yolks of Eggs beaten with Vinegar, and some Mustard.

To make a *Venison Pasty*, if the Flesh is hard, it must be well beaten, skinn'd, larded, well season'd with Pepper, Salt, beaten Cloves, and Vinegar; and afterwards put in Paste, and carried to the Oven, where it is left for the Space of three Hours. When done, the Hole, which had been left to give it Vent, must be stopp'd.

To make a *Ham Pye*, after it has been well soak'd, it must boil a Gallop or two, and afterwards be skinned; when skinned, it is put in Paste, like Venison, and season'd with Pepper, Cloves, and Parsley: If it be a big one, it must stay five Hours in the Oven, and thus in Proportion to its Bigness.

To make a *Ragout of Truffles*, they must be par'd very clean, cut very thin, and fried with Butter, some hash'd Parsley, and Broth, where they are left to stew for a little while; they must also be very well season'd.

To dress the *Truffles dry*, they must be wash'd with Wine, and afterwards boil'd in strong Wine, a little Vinegar, and a great deal of Salt and Pepper: When well done, they are left for some Time in their Liquor, and carried to Table dry, on a Napkin.

To dress *Colliflowers*, they must be boil'd with Salt, and a Piece of Butter; when done, they are pared, and carried to Table with a thick Sauce, made of fresh Butter, a Drop of Vinegar, and some Nutmeg.

Fowls are pickled with Vinegar, Salt, Pepper, and Lemon-peel, and are left in their Pickle till they be wanted; when wanted, they are taken out, put to drain, and after they have been fried in Butter, they are put to stew for a few Minutes, in some of the Pickle, and then carried to Table.

The *Jelly of Hartshorn* is made by boiling a sufficient Quantity of Hartshorn Shavings in White Wine for the Space of two Hours, more or less, at the Cook's Discretion; when boil'd, it is strain'd through a Cloth, and afterwards put in a Basin with a sufficient Quantity of Sugar, (*i. e.* a Pound of Sugar for two Pounds of Hartshorn) and Lemon Juice; when it is ready to boil, Whites of new-laid Eggs must be mix'd with it, and immediately after the whole Mixture must be thrown in the Flannel, and kept in a cool Place. The *green, yellow, blue, &c. Jellies*,

are the same *Jelly*; only colour'd with those different Colours.

The *Blanc Manger* is made of the same *Jelly*, warm'd with Almonds very well pounded, and the whole strain'd through a Cloth.

To make *Fritters of Marrow*, we take the biggest Pieces of Beef Marrow we can get, slice, and dip them in a Paste, or Batter, made of Flour, Eggs, and Milk, well season'd; and afterwards fry them in Butter. The *Fritters of Apples* are made in the same Manner.

Fritters of Artichokes, are made of Bottoms of Artichokes half boil'd, slic'd, and dipp'd in Batter, made as above.

To fry *Artichokes*, they must be cut in Pieces, the Choke, and all the Leaves, except one of the smallest, left on each Piece, taken off, and thrown into boiling Water, to blanch them; afterwards they are dried, floured, and fried in Lard, or burnt Butter. They are carried to Table hot, and garnish'd with fried Parsley.

To make a *Ragout of Mushrooms*, after they have been well clean'd, they are fried in fresh Butter, with Parsley and young Onions hash'd together, well season'd, and Lemon-juice added to it, with some *blanc Manger*, when they are ready to be carried to Table.

To fry *Mushrooms*, they must be blanched in cold Water, dried, and afterwards pickled in Vinegar, Salt, Pepper, and Onions; and when they are to be fried, a Batter must be made, with Flour and Yolks of Eggs, in which the Mushrooms are put, and then fried.

To make a *Westphalia Ham*, we put our Pork in a Wine or Beer Cellar for four Days; during which Time, a Sort of Water will come from it, which must be wip'd very often; if it be wet Weather, it must be left there but two Days, and two Nights: It is afterwards put to the Press between two Boards, and left there as long as the Hog has been dead; after which, it is salted, and season'd with Pepper, beaten Cloves, and Aniseed. The *Hams* must be left in Salt for the Space of nine Days, and afterwards taken out, and put in Lees of Wine, for nine Days more; which elaps'd, they are wrapp'd in Hay, and buried in the Cellar, in a Place not too damp: Being taken out, they are hung to smoke, and must be perfum'd twice a Day, with the Smoak of burnt Juniper; when dry, and little smoken, they are carried to a dry Place, where they are kept, and visited often, lest they should rot, till they be wanted; when, after they have been clean'd, and soak'd, they are boil'd in a Pot full of Water, season'd with fine Herbs, and without Wine. When done, the Rind must be rais'd, and the Flesh larded with Cloves, and spread over with Pepper, and hash'd Parsley; then the Rind, or Skin, is put upon it, and the *Ham* kept in a cool Place, till wanted.

To make *Panatum*, take good Broth, and Crumbs of Bread, and have them boil'd well together; when almost done, add to it Yolks of Eggs, and Lemon-juice. Another Method of making *Panatum*, is, to take the Flesh of Capons, or Partridges, well hash'd, beat them well in a Mortar, and mix it afterwards with Broth, Crumbs of Bread, and Salt; adding, likewise, to it, when near done, Yolks of Eggs, and Lemon-juice.

The different Sorts of Meat-Pies, are as follow, *viz. Turkey Pye, Partridge Pye, Ham Pye, Rabbit Pye, Chicken Pye, Woodcock Pye, Duck Pye, Lamb Pye, Goose Pye, Fible Pye, Sweetbread Pye, &c.*

To make a *Pye of Turkeys*, the *Turkey* must be larded with big Lardons, and very well season'd with Salt, Pepper, Vinegar, and beaten Cloves, and the Paste very well fed with Butter. Another Manner of making such a *Pye*, is, to skin the *Turkey*, to take off the Merrythought, and stuff it with Mushrooms, Truffles, Bottoms of Artichokes, Cocks Combs, and Sweetbreads; this Stuffing is proper in Case you take only the Merrythought; but if you skin the *Turkey*, you must hash its Flesh with Marrow, and season it well, adding Yolks of Eggs to it; then you fill the Skin

Skin with this Stuffing, and put it in Paste, with Mushrooms, Bottoms of Artichokes, Asparagus, &c.

To make a *Partridge Pye*, they must be larded, season'd, put in a Paste very well fed with Butter, carried to the Oven, and baked for the Space of three Hours.

To make a *Rabbit Pye*, they must be larded with big Lardons, and well season'd with Salt, Pepper, beaten Cloves, and Vinegar.

To make a *Chicken Pye*, they must be larded, well season'd, and put in a fine Paste.

To make a *Pye of Larks*, they must be bruised, and fried, without the Gizzards, with Mushrooms, Truffles, Cocks Combs and Stones, well seasoned, put in Paste, and baked for the Space of two Hours and a Half.

To make a *Veal Pye*, you must take a Fillet of Veal, lard it, season it well, and put it in Paste. Another Manner of making a *Veal Pye*, is, to hash the Veal with Marrow, or Beef Suet, to season it well, and to garnish it, while in Paste, with Mushrooms, Bottoms of Artichokes, Sweetbreads, and Yolks of Eggs hard.

To make a *Duck Pye*, the Ducks must be larded, well seasoned, and the Pye baked for the Space of three Hours.

To make a *Lamb Pye*, the Lamb must be larded with big Lardons, seasoned with hashed Parsley, Pepper, Salt, beaten Cloves, and garnished with Mushrooms, Morilles, and Capers. When baked, it must be carried to Table with a white Sauce, made of Yolks of Eggs, beaten with Verjuice.

To make a *Deer Pye*, the Deer must be well larded, season'd, and garnish'd with Jiblets, Mushrooms, Truffles, and Morilles.

Though we are in a *Protestant Country*, where a *meagre Cookery* smells a little of *Popery*; we, notwithstanding, must give some Directions towards making a *meagre Entertainment*, and how to dress all Sorts of Fishes. I'll begin, as I have done in my first Kitchen, by preparing *Soups*, *Pottages*, or *Broths*.

There are several Sorts of *meagre Pottages*, or *Soups*, viz. *Pottage of Herbs*, of *Crawfish*, of *Carps*, of *stuffed Tench*, of *Muscles*, of *Oysters*, of *Asparagus*, of *Colliflowers*, of *stuffed Lettices*, of *Turnips*, of *Proscioles*, of *Cucumbers*, of *stuffed Mushrooms*, &c.

To make *Herb Soup*, you must hash very well together, Sorrel, Bugloss, Burrage, and a good Quantity of Lettices; then fry them in fresh Butter, and put them afterwards in boiling Water, with other fresh Butter, and a Crust of Bread, making it boil slowly, for the Space of an Hour, at least. When the *Soup* is to be carried to Table, you may whiten it, if you please, with Yolks of Eggs beaten with some of the *Soup*.

To make a *Soup of Crawfish*, after the Crawfish have been clean'd well, they are boil'd in Wine, Vinegar, Salt, and Pepper; being done, the Claws and Tails are fried with fresh Butter, and some Parsley, and the Bodies beaten in a Mortar with an Onion, hard Eggs, and Crumbs of Bread: This done, the Mixture is put to stew with some of the *Herb Soup*, or other *Soup*; when stew'd, it is strain'd through a Cloth, and put afterwards before the Fire, to keep it hot; then you fry some Parsley in fresh Butter, which you put, when fried, together with the Butter, in your *Soup*, well season'd, which must stew a little longer. When the *Soup* is carried to Table, the Dish must be garnish'd with the Claws and Tails of the *Crawfish*.

To make a *Soup of Carps*, we take out all the Bones, and put them to boil in Pease Pottage, with some Onions, and Crumbs of Bread; being boil'd, they must be fried with some Parsley, and put again in the *Soup*: While they are boiling, we make a Hash of the Flesh of the *Carps*, which, when done, is put over the roasted Bread, and the Broth pour'd upon it, garnishing the Dish with Slices of Lemon and Mushrooms.

To make a *Soup of Stuffed Mushrooms*, we pick and wash them well, then put them to boil in Water, with

an Onion larded with Cloves, Thyme, Pepper, and Salt; when boil'd, we strain the Broth through a Cloth, and put it in a Pot; then fry the Mushrooms with Butter, Parsley, and Capers, and put them afterwards in the Broth; and when ready to be carried to Table, we fill the Bottom of the Dish with a Hash of Carps, and pour the Broth upon it, garnishing the Dish with Mushrooms stuffed with the same Hash.

To make a *Soup of Muscles*, after they have been well bearded and wash'd, they must be boil'd in Water, with Salt, and an Onion; being boil'd, they are taken off the Shells, and afterwards fried with hash'd Parsley; the Water in which they have boil'd being settled, it must be pour'd gently into another Pot, leaving the Bottom, for Fear it should have some Sand in it: Then that Broth is put to boil, with a good deal of fresh Butter, and fried Parsley; when carried to Table, the Dish must be garnish'd with the *Muscles*.

To make *Oyster Soup*, we boil the *Oysters*, and when boil'd fry them in fresh Butter, with Parsley; while they are frying, we put in the Water they have been boil'd, some fresh Butter, and continue to make it boil: When they are fried, we throw them, together with the Parsley and Butter, into that Liquor, where we leave them to simmer a little while.

To make *Onion Soup*, we slice the *Onions* very thin, and then fry them; we put them in a Pot with Water, and more Butter, making them boil till they are well done; then we put a Crust of Bread in it, with some Salt and Pepper, leaving it to boil for a little while longer. When fit to be carried to Table, we beat Yolks of Eggs with a Drop or two of Vinegar or Verjuice, with which we thicken and blanch the *Soup*. Some add to it, while it is boiling, a few Spoonfuls of Pease Soup, and then it wants no Eggs.

To make a *Soup of green Pease*, you must take them as young as possible, and having been fried in fresh Butter, they are put to stew, well season'd with Parsley and young Onions; when stew'd, they are mix'd with *Herb Soup*, and carried to Table.

To make a *Soup of stewed Cucumbers*, we pare them, and take out all the Inside; then we make a Stuffing with Sorrel and Yolks of Eggs, well season'd, with which we fill the *Cucumbers*; after which, we put them in Water, and a good deal of fresh Butter, with a Crust of Bread; which we make boil slowly together for the Space of an Hour and a Half.

The *Entrées* or *Ragouts* which accompany these Sorts of *Soups*, are, the *Ragout of Soles*, of *Pikes*, of *Tench*, of *stewed Tench*, of *stuffed, fried, and roasted Carps*; of *Salmon*, of *Oysters*, of *Eels*, of *fresh Cods*, and *stewed Carps*; *Fritters of Oysters*, *stuffed and stewed Soles*, *Flounders fried*, *Plaice roasted*, *Eels roasted* with a green Sauce, *stuffed and roasted Pike*, *roasted Mackerel*, *fresh Herrings roasted*, *Merluce fried*, and in the *Sauce Robert*; *fried Thornback*, *Joint of Salmon* with *sweet Sauce*, and in *Sallad*; *Ham of Fish*, *Tripes of Cods fried*, *pickled and red Herrings*, *Eel Pies*, &c.

To make a *Ragout of Soles*, they must be floured, and half fried; then they are open'd all along the Bone, and the Bone taken out; which done, they are fill'd with a Stuffing made of Capers, Mushrooms, Truffles, Soft Rows, and Crumbs of Bread; and put afterwards to stew in a Pot, with fresh Butter, an Onion cut small, Verjuice, and some Broth. When carried to Table, the Dish must be garnish'd with Slices of Lemon.

To make a *Ragout of Pikes*, they must be cut in Slices, and put to stew with White Wine, a Bundle of sweet Herbs, fresh Butter, and well season'd with Salt, Pepper, Capers, and Mushrooms; when done, the Sauce is thicken'd with Yolks of Eggs, beaten with some Vinegar, or Verjuice.

To make a *Ragout of Tench*, they must be cut in Pieces, well wash'd, and boil'd in Water, with Salt, Pepper, and an Onion, adding to it, afterwards, Half a Pint of White Wine, and some hash'd Parsley. When done, the Sauce is thicken'd with Yolks of Eggs, as above.

To make a *Ragout of stuffed Tench*, the *Tench* must be

be stuffed with a Stuffing made of the Flesh of *Tench* and hash'd Yolks of Eggs, well season'd; then they are stew'd in Broth and White Wine, with Crumbs of Bread, Mushrooms, Asparagus, and Truffles.

To make a *Stew of Carps*, they must be cut in Pieces, put to boil in a Pot with White or Red Wine, and well seasoned with hashed Onion, Salt, Cloves, Pepper, Capers, and some Crumbs of Bread; when they are well done, the Sauce is thickened with Yolks of Eggs.

To make a *Ragout of stuffed Carps*, the *Carps* must be opened all along the Back-bone, the Skin raised, the Flesh hashed, and seasoned with Parsley, fresh Butter, Salt, Pepper, and Yolks of Eggs, with which we fill the Skin; then we make it boil in Broth, seasoned with Verjuice, Mushrooms, Asparagus, young Onions, and fresh Butter: When almost done, the Sauce must be thickened with Crumbs of Bread, adding Capers to it.

To make a *Ragout of Salmon*, it must be larded with Cloves, and roasted; when roasted, it must be stewed slowly in Wine, with Salt, Pepper, and fresh Butter, till the Sauce grows very short.

To *stew Salmon*, it must be cut in Slices, larded with Cloves, and put to stew in White or Red Wine, well seasoned, with fresh Butter, Salt, Pepper, Capers, and an Onion hashed, till the Sauce grows very short.

To make a *Ragout of Oysters*, they must be put to stew in their own Liquor, with fresh Butter, Onions, hashed Parsley, Capers, and Crumbs of Bread, well seasoned with Pepper and Salt.

To make *Fritters of Oysters*, they are dipped in Batter made of Flour, Eggs, and Milk, and fried in Butter.

To make a *Ragout of Flounders*, they must be put in a Stew-pan, with Butter, young Onions, beaten Cloves, Salt, Pepper, Capers, some White Wine, or Vinegar, and Mushrooms; when done, the Sauce is thickened with Yolks of Eggs. *Plaice* are done in the same Manner.

To *stew Eels*, we cut them in Pieces, and stew them in White Wine, or Water, with Parsley, Capers, and fresh Butter, the whole very well seasoned, with Salt, Pepper, and beaten Cloves.

To *dress an Eel in Form of Cervelat*, or, as we call it here, *collared Eels*; we slit the *Eel* in Half, take out the Bone, beat the Flesh well, and season the two Pieces with Pepper, Salt, Butter, and hashed Parsley; then we roll them, and tye them very tight with Packthread: Thus prepared, we put them to boil in White Wine, well seasoned; and when done, we take them out, and send them to Table in Slices.

To *stuff a Pike*, it must be slit all along the Back-bone, the Skin left from the Head to the Tail, Half the Flesh taken off with the small Bones, and the Back-bone left, to keep up the *Pike* when stuffed; then we take Half the Flesh of the *Pike*, and Half Flesh of *Carps*, or *Eels*, and hash them together with Yolks of Eggs raw, Parsley, Salt, Pepper, sweet Herbs, Butter and Milk mixed together, and Mushrooms; with which we stuff the *Pike*, sew it up, and then put it to boil, making the Sauce with Fish Broth, a Drop or two of Vinegar, or Verjuice, Parsley, Capers, and Mushrooms, well seasoned.

To *roast Mackerel*, they must be wrapped in Fennel, and put upon the Gridiron, at a Charcoal Fire, turning them often; when roasted, they must be opened, and a good Sauce made under them, with Butter, Parsley, and Gooseberries, the whole very well seasoned.

To *roast fresh Herrings*, they must be put on the Gridiron, and, when they begin to roast, rubbed over with Butter; when roasted, a Sauce must be made with fresh Butter, a Drop or two of Vinegar, Salt, Pepper, Nutmeg, and some Mustard.

To make a *Ragout of fresh Cod*, it must be rubbed over with Butter, put upon the Gridiron, seasoned with Salt and Cloves, and, while roasting, basted with

fresh Butter, in which we put Parsley hashed, and Onions, mixing with it some Broth, Vinegar, and hashed Capers; then we put the roasted *fresh Cod* to stew a little, in that Sauce, and carry it to Table with some Mustard.

To make a *Ham of Fish*, we hash the Flesh of *Carps*, *Tench*, and *Eels* together, and season it with fresh Butter, Capers, and sweet Herbs, wrapping the Hash in the Skin of a *Carp*, and over it a buttered Paper, tying the whole in a Piece of Cloth, and then putting it to boil in White Wine, with Spices: When done, we take off the Cloth and Paper, and send the *Ham* to Table in Slices.

To make a *Eel Pye*, we cut the *Eels* in Pieces, and put them in Paste, very well seasoned, with Yolks of Eggs, Parsley, Mushrooms, Asparagus, Verjuice, or Gooseberries, in the Season, Butter, Salt, and Pepper.

Of all the different Ways of dressing Eggs, I will content myself with giving some of them here, viz. *stuffed Eggs*, *Eggs with Bread*, *Eggs with Milk*, *Eggs with Cream*, *Eggs with Anchovies*, &c.

To *stuff Eggs*, we hash well together, Sorrel, Lettice, and Charvel, and fry them with fresh Butter; when fried, we put them to stew for five or six Minutes, and season them with Salt and Pepper; the Stuffing done, we cut the *Eggs* in Halves, take off the Yolks, and hash them with the Stuffing; the whole being well mixed, we put it to stew for three or four Minutes longer, and grate some Nutmeg over it; then we send it to Table, garnished with the Whites of the *Eggs*.

To prepare *Eggs with Bread*, we mix Crumbs of Bread, and Sugar, with fresh Butter, melted; then we take new-laid *Eggs*, as many as we want, and beat them well with the Bread, Sugar, Butter, Salt, and some Milk: Afterwards, we melt some Butter very hot, put the Mixture into it, and leave it on the Fire to be done: Then we make the Fire-shovel red-hot, and pass it over the *Eggs*, to give them a Colour.

To prepare *Eggs with Milk*, we sugar them, beat them well, and mix them with Milk; then we have some fresh Butter melted in a Dish; being melted, we put the *Eggs* into it, that they may be done, and afterwards give them a Colour with the Fire-shovel red-hot.

To prepare *Eggs with Cream*, we break a Dozen of *Eggs*, take six Yolks, and beat them well with Sugar, and a little Salt; then we mix them with Cream, and have them done in a Sauce-pan; being done, we sugar them, and send them to Table.

To prepare *Eggs with Anchovies*, we wash several Times the *Anchovies*, in Water, or Wine, take out the Bones, and put them to melt, with fresh Butter, in a Dish; being melted, we break so many *Eggs* in the Dish as we have Sauce; being done, we grate some Nutmeg over them, and send them to Table.

Fishes that are served for a second Course, are, the *Turbet* at the *Court-bouillon*; *fried Soles*; *Salmon* at the *Court-bouillon*; *fried Thornback*; *fresh Cod*; *Pike*; *Trout* at the *Court-bouillon*; *Perch* at the *Court-bouillon*; *Salmon* with a *sweet Sauce*; *Lampreys*, &c.

To *dress the Turbet*, it must be put to boil gently in White Wine, seasoned with Salt, Pepper, Cloves, and sweet Herbs, as Rosemary, Thyme, and Onions; being done, it must be sent to Table garnished with Parsley.

Note, That almost all *Court-bouillons* are made with Half Wine, and Half Water, Cloves, whole Pepper, Salt, Orange-peel, a Bunch of sweet Herbs, and two or three Bay-leaves; for want of Wine, you may put good Vinegar.

There are a great many other *Pies* of *Fish* than those heretofore mentioned, viz. *Pies* of *Salmon*, of *Trouts*, of *Carps*, of *Sturgeon*, of *Turbet*, of *Soles*, of *Oysters*, and of *Crawfishes*.

Note, That before we proceed farther, I must give you

you some Instructions relating to the making of Paste for your Pyes and Tarts. The puffed *Paste* is made in this Manner: Suppose, for Example, we take four Pounds of Flour, we mix that Flour with cold Water and a little Salt; when mixed, we leave it a little at Rest, and afterwards work it with two Pounds of Butter, extending it to cover it with that Butter, after which, we fold it up in three, extending it again to fold it in four; this done, we make again three or four such Turns, then carry it to a cool Place, to use it as we want it. The *fine Paste* is made with four Pounds of Flour, and a Pound and a Half of Butter, very well worked together with Salt. The *Paste* with *warm Water* is made in the same Manner, except that you heat the Water and Butter.

Note, also, That all *Fish Pies* are baked in two Hours.

To make a *Pye of Salmon*, it must be larded with Eels, or Carps, and seasoned with Pepper, Salt, and beaten Cloves; then it is put in Paste, and over it a Bay-leaf, with a good Quantity of fresh Butter, and a little Vinegar; which done, the *Pye* is closed, in Form of the Fish.

To make a *Tart of Oysters*, they must be blanched in warm Water, and afterwards fried in fresh Butter, with Parsley and Onions hashed, and Mushrooms, the whole well seasoned, and afterwards put in puffed Paste, and garnished with Yolks of Eggs hard, Bottoms of Artichokes, Morelles, and Asparagus. When the *Tart* is bak'd, a Sauce is made with two or three young Onions, whole Pepper, Salt, and a little Vinegar, tossed in the Frying-pan with Butter; when the Sauce is brown, the Onions must be taken out, and two Yolks of Eggs mix'd with it; then the Sauce is thrown, boiling hot, into the *Pye*.

To make a *Tart of Crawfish*, they must be boil'd with Salt, Pepper, and a very little Vinegar; then they are pick'd, and fried in fresh Butter, with Mushrooms and Parsley, hash'd; then the whole, being well season'd, is put into Paste: Being baked, you make

to it a red Sauce of the Shells of the Crawfish pounded, strain'd thro' a Cloth, and mix'd with some Broth, Yolks of Eggs, a Drop or two of Verjuice, and some Nutmeg. This Sauce must be put in the *Tart* when it comes out of the Oven.

To make a *Tart of Spinnage*, we hash the *Spinnage* very fine, and mix it afterwards with melted Butter, Salt, Sugar, and some pounded Almonds; then we put the whole Mixture in Paste, and have it bak'd; being bak'd, we send it to Table with Sugar over it.

To make a *Jelly of Fish*, you must take the Scales of Carps, six Tench, and three Pints of White Wine; and make the whole boil well together, with a little Salt, Cinnamon, and four Cloves; then you strain the Liquor thro' a Cloth, with Expression, to force the Juice out; which done, you put a Pound of Sugar to it, then break a Dozen of Eggs; and fry the Whites; when fried, you heat the *Jelly*, and when it is ready to boil, throw into it the Juice of five Lemons, and the Whites of the Eggs; when it begins to boil, throw it into the Flannel, and strain it thro' it, as often as it is wanted, to make it clear.

I'll conclude this Treatise of *Cookery*, with a Catalogue of all the different Meats in Season, throughout the whole Year.

From Easter to Midsummer, are in Season,

Chickens, young Turkeys, green Geese, Lamb, Pigeons, young Hares, Partridges, Pheasants, Ortolans, and Rabbits.

From Midsummer to the Middle of October, are in Season,

Young Partridges, young Pigeons, Turtles, young Pheasants, young Quails, young Hares, Turkeys, young Capons, Pigeons, fat Geese, fat Fowls, Ortolans, young Ducks, Fawns, &c.

From the Middle of October, to Lent, are in Season,

Fat Capons, fat Fowls, Turkeys, Lamb, Hares, Partridges, Woodcocks, Plovers, Teals, Wood-pheasants, fat Quails, fat Geese, Ducks, both wild and tame, Larks, Pigs, &c.

C O R D W A I N E R S.

C O R D W A I N E R S, or *Cordiner*, from the *French Cordonnier*, is the Term whereby the Statutes denominate *Shoemakers*, who are a Set of Mechanics employed in making Accoutrements for our Feet, proper to shelter them from several Inconveniences, and even Accidents, to which, without a *Cordwainer's* Assistance, they would be exposed.

The *Art of Cordwaining*, tho' consider'd as a very vulgar one, and not much esteem'd, has, notwithstanding, its particular Rules, like all other Arts, and some of them so indispensibly necessary in the Practice, that they must be exactly follow'd, to be accounted a good *Cordwainer*.

Before we enter into an exact Detail of those Rules, and reduce them to Practice, we must fit up our *Cordwainer's* Shop, with all the Utensils belonging to his Craft; as Lasts, of all Sizes, and Shapes; Sliding-Rules, or Lines of Inches; Knives, Awls, Wax, Thread, Blacking, Stools, Stirrups, Sticks, Bones, &c. but, above all, with a good Quantity of Leather, both for the Upper Leather, and the Soal.

Our *Cordwainer's* Shop thus fitted, we'll set him to work; making him, first, take Measure for a Pair of Shoes. Therefore he must take his *Sliding-Rule*, or, what is still better, a *Line*, which may be very commodiously made of *Tape*, and divided into Inches, and Decimal Parts, or any other Ways, as shall best please. He must apply one End of this *Line* to the Middle of the Heel, and guide it from thence to the End of the Great Toe, which will be the Length of

the Shoe, allowing something for the stretching of the Leather. The next Thing he must do, is, to take the Height of the Instep, by thrusting his *Line* under the Foot, and coming round to join both Ends over the Instep, taking Care to not allow too much there, nor too little for the stretching of the Leather; for if he allows too much, and the Instep be much higher than needs be, the Shoe will never wear well; but, on the contrary, will always make Grimaces, both before and behind: If, on the contrary, he allows too little for the Height of the Instep, besides that the Shoe must then be unshapeable, it must pinch the Foot, and prove very prejudicial to the Health of the Person who wears it, by obstructing the Circulation of the Blood in that Place, which in Length of Time would be attended with dangerous Consequences. When he has took the Height of the Instep, he afterwards takes the Breadth of the narrower Part of the Foot.

The next Care of our *Cordwainer*, is, to find in his Shop a *Last* which will answer that Measure in Length and Breadth, and what it wants in Bigness, is supplied with Instep Leathers, and a Cork. In cutting out his Upper Leather, he must allow something for the reaching, and reach well the Quarters in Length, that they may not reach in *Lasting*. If it be a long Quarter, the Straps ought to be very broad, and mount high on the Instep, that the Quarter may sit tight behind, making the Seam even, and firm; tho' at *Paris* they make often their Quarters all of a Piece, without any Seam behind: And to me, who have often wore

fuch, they appear tighter, and fit a great deal better. The Sides must be well clos'd, sew'd, and lin'd round.

Before the *Cordwainer* can pretend to *last* his Leather, he must wet it, and lay it to dry, that it may be mellow; then reach and hammer it very close; afterwards he tacks on the In-Soal, *lasts* his Toe-Lining, taking Care to leave it as strong as possible, *i. e.* not pare it too thin; then *lasts* his Upper Leather, and slicks the Toes of it bright, rubbing it over with some Paste, to keep it smooth, sewing it afterwards with a Thread well wax'd, taking Care to wax it often in working; otherwise it would soon be worn out.

The *Heel*, if it be Wood, must be put in next, pulling up the Rand tight, slicking it, rubbing it over with Paste, or Gum Adragante, to render it smooth, and bracing it afterwards; which done, the outer Soal is to be rounded, tack'd on, and rubb'd close with the long Stick; then the Channel must be cut, and stitch'd, rubbing once more, afterwards, the outer Soal, to cover the Stitches: Next, the *Heel* is tack'd, well beaten down, cut round even with the Soal, and sew'd down; this done, the remaining Lifts and Top-pieces are tack'd on, but they must not be all sew'd down, unless it be a very low *Heel*: When they are all tack'd, and well beaten down, our *Cordwainer* shapes his Top-piece rough, pares his *Heel*, pegs it, and rough pares it again, plaining the Sides of it afterwards, to make it solid and close; he also plains the Soal even to the Stitches, and then takes off the Edge even to the Stitches, pares it smooth, and rasps it, rubbing it over afterwards with a Sand Stone, blacking it with Copperas-water, doing it over with Paste, and rubbing it well with the Rubbing Stone; then blackens his Shoe, for the last Time, with the Blacking Brush, clearing it afterwards with a Piece of black Crape; which done, he slicks the Upper Leather, rubs up the Seams, pulls out the *Last*, and the Shoe is fit to put on.

In *Double Channel Pumps*, the Heel-Part is made first, then the *Last* is pull'd out, and the Channels stitch'd.

As to the cutting of Boots, the Tongue, after trench'd out, must be braced very well with a Cord, then cut fit, and beaten afterwards into the Leg, (which Leg must be first shap'd to the Person's Leg;) the Tongue having been thus beaten into the Leg, must be cut a little lesser, that it may fit clean. These Directions were sent me by my honest Friend, and Subscriber, *J. Martin*, of *Taunton*.

As to the Antiquity and Origin of *Cordwaining*, or

Shoe-making, *Benedict Baudouin*, (a Native of *Amiens* in *Picardy*, the Son of a *Cordwainer*, and himself a Workman in his Father's Shop) maintains, in his learned Treatise of the antient *Shoe*, *De Solea veterum*, that God, in giving *Adam* Skins of Beasts to cloathe him, did not leave him to go bare-footed, but gave him *Shoes* of the same Matter; that after raw Skins, Men came to make their *Shoes* of Rushes, Broom, Paper, Flax, Silk, Wood, Iron, Silver, and Gold; so different has their Matter been. Nor was their Form more stable, with Regard either to the Shape, Colour, or Ornaments; they have been square, high, low, long, and quite even, cut, carved, &c.

Pliny, l. 7. c. 56. tells us, that one *Tychius*, of *Baotia*, was the first that us'd *Shoes*. Mr. *Nilant*, in his Remarks on *Baudouin*, observes, that he quotes *Xenophon* in vain, to shew, that even in his Time they still wore *Shoes* of raw Skins. *Xenophon* relates, that the 10000 *Greeks*, who had follow'd the young *Cyrus*, wanting *Shoes* in their Retreat, were forced to cover their Feet with raw Skins, which occasioned them great Inconveniencies. *Nilant* will not even allow that the *Shoes* of the Country People, call'd *Carbatine*, and *Peronee*, were of crude Skin, without any Preparation.

The Patricians among the *Romans*, wore an Ivory Crescent on their *Shoes*: *Heliogabalus* had his *Shoes* cover'd over with a very white Linnen, in Conformity to the Priests of the *Sun*, for whom he professed a very high Veneration. This Kind of *Shoe* was call'd *udo*, or *odo*. *Caligula* wore *Shoes* enrich'd with precious Stones. The *Indians*, like the *Egyptians*, wore *Shoes* made of the Bark of the *Papyrus*. The *Turks* put off their *Shoes*, and leave them at the Doors of the Mosques.

In *Paris*, they have two pious Societies under the Title of *Freres Cordonniers*, *Brothers Shoemakers*, establish'd by Authority towards the Middle of the seventeenth Century; the one under the Protection of *St. Crispin*, the other of *St. Crispianus*, two Saints who had formerly honour'd the Profession. They live in Community, and under fix'd Statutes and Officers; by which they are directed, both in their spiritual and secular Concerns. The Produce of their *Shoes* goes into a common Stock, to furnish Necessaries for their Support; the rest to be distributed among the Poor.

John Baptista Gallo, a *Shoemaker* of *Florence*, has publish'd some fine Pieces, in the *Italian* Language; and, among others, Dialogues in Imitation of *Lucian*.

C O S M O G R A P H Y.

COSMOGRAPHY, from the *Greek* *κοσμος*, *mundus*, World, and *γραφω*, *scribo*, I describe; is the Description of the World, or the Art which teaches the Construction, Figure, and Disposition of all the Parts of the World, with the Manner of representing them on a Plane.

Cosmography consists chiefly of two Parts: *Astro-*

nomy, which shews the Structure of the Heavens, and the Disposition of the Stars; and *Geography*, which shews those of the Earth. But as I have wrote already a whole Treatise of *Astronomy*, under the Letter *A*, and am to write one of *Geography*, under the Letter *G*; I refer the Reader to those two Treatises, for all that can be said on this Subject, *Cosmography*.

C O U N C I L S.

COUNCILS, in Church History, or *Policy*, are Synods, or Assemblies of Prelates, Doctors, &c. canonically convok'd, and met, for the regulating of Matters relating to the Doctrine or Discipline of the Church.

The Church admits of three different Sorts of Councils, viz. *Œcumenical*, or *General Councils*, *National Councils*, and *Provincial Councils*.

Œcumenical, or *General Council*, is an Assembly

of all the Prelates of *Christendom*, convok'd (in the Sentiment of the Partisans of the Court of *Rome*) by the Pope's Authority, and where he presides, either in Person, or by his Legates. But this Opinion is not generally receiv'd, even in the *Roman Catholic* Church, as I design to shew by and by.

National Council, is an Assembly of the Prelates of a Nation, under their Primate, or Patriarch.

Pro-

Provincial COUNCIL, is an Assembly of the Prelates of a Province, under the Metropolitan.

The *Roman Catholick Church* reckon eighteen *General Councils*, viz. two of *Nice*, four of *Constantinople*, one of *Ephesus*, one of *Chalcedon*, five of *Lateran*, two of *Lyons*, one of *Vienne*, one of *Florence*, and the last of *Trent*. The Reformed admit but four of those *Councils* for *œcumenical*.

The first *Council*, was that of *Jerusalem*, held by the Apostles, in the Year of *Christ* 50, of the Emperor *Claudius* 8. The Occasion of this *Council*, was, the Disputes which had arose among the *Jews* and *Gentiles* newly converted, about the Observance of the Ceremonies of the Law of *Moses*, and, particularly, about the Circumcision; the *Jews* pretending that the *Gentiles*, who had embraced the *Christian Faith*, ought to be circumcised; which occasion'd a great Confusion in the Infant Church. *St. Peter* spoke first in that *Council*, and remonstrated, that *God had made no Difference between the Jews and Gentiles, purifying their Hearts by Faith; that therefore they should not tempt him to put a Yoke upon the Neck of the Disciples, which neither their Fathers, nor they, were able to bear*, Acts xv. 9, 10. *St. James* spoke last, and concluded, that his Sentence was, that they should not trouble them, which from among the *Gentiles* were turned to *God*; but that they should abstain from Pollutions of Idols, and from Fornication, and from Things strangled, and from Blood.

The first *General COUNCIL*, was that of *Nice*, in *Bithynia*, convok'd by the Emperor *Constantine the Great*, in the Year of *Christ* 325, and held the same Year; occasion'd by the Troubles and Confusion which the Heresy of *Arius* had caus'd in the Church of *Alexandria*; where the Emperor assisted in Person, (as we have already mention'd in our Treatise of *Arianism*) and where, besides the Condemnation of *Arius*, several Canons were made relating to the Discipline of the Church; especially that famous one about the Celebration of the Feast of *Easter*.

There is a great Dispute, among the ecclesiastical Authors, concerning the Number of Canons made at the *Council of Nice*; for several of them admit but of twenty, according to *Rufinus*; and others reckon more: This Controversy proceeds from those happen'd since in the *Christian Church*, in Matter of Faith, and of Discipline; every different Sect (I mean those who do not reject all the *Councils* as *human Inventions*) retrench from, or add to those Canons of the first *General Council*, as they judge it most proper to favour their particular Opinions, in Matter of Faith, and of Discipline. The *Council of Nice* was compos'd of 318 Bishops, among whom were *Vitus* and *Vincentius Priests*, of the Church of *Rome*, representing their Bishop *Silvester*, to whom the Acts of the *Council* were sent afterwards, for his Approbation; which make the Asserters of the Pope's Supremacy suppose that *Silvester* presided at that *Council*, by his two Legates, as they have been call'd since: But all the Enemies of the *Roman Church*, and even a vast Number among the *Roman Catholics*, are of a contrary Opinion, and pretend, (not without a very great Appearance of Reason) that none but the Emperor *Constantine* presided in that *Council*; which Controversy should be determin'd by the Authors of those Times.

The second *General COUNCIL*, is that of *Constantinople*, convok'd by the Emperor *Gratian*, in the Year of *Christ* 381, and compos'd of 150 Bishops, for the Ordination of *Nestarius*, Bishop of *Constantinople*, the Confirmation of the Doctrine of the *Council of Nice*, and the Condemnation of *Macedonius* and his Partisans. *Socrates*, l. 5. c. 8. says, that it was in this *Council*, and not before, that Patriarchs were created, and the Division of Provinces was made; it being decreed then, for the first Time, that a *provincial Council* could terminate all ecclesiastical Affairs. The same Historian says, further, that the Decrees, or Canons of this *Council*, were approv'd and confirm'd by the Emperor.

The third *General, or Œcumenical COUNCIL*, was the celebrated one of *Ephesus*, assembled against *Nestorius*, Bishop of *Constantinople*, in the Year of *Christ* 431, of the Emperor *Theodosius* 24, of *Valentinian* 7, of *Celestinus*, Bishop of *Rome*, 8. This *Council* was convok'd by the Emperor *Theodosius*, at the Instance of *Cyril*, Bishop of *Alexandria*; who, in *Evagrius's*, and some other Authors' Opinions, presided in the *Council* for Pope *Celestinus*. The Truth is, that *Theodosius* was not present in the Assembly, which began the 21st of *June* of the same Year 431, in the Church dedicated to the blessed Virgin *Mary*; whose Honour, as *Mother of God*, was sacrilegiously attack'd by *Nestorius* and his Partisans, who denied publicly that the *Word*, or *Son of God*, had been begotten of the Body of the Virgin *Mary*; and asserted, that it was ridiculous to call *God a Child of two or three Months*. *Nestorius* was cited three Times to appear, and come to the Assembly; the first Day he promis'd (says *Evagrius*) that he would appear at any Time when it would be necessary; but having forfeited his Word, and refus'd obstinately to come to the *Council*, and his Doctrine having been examin'd, with all the Care and Formalities us'd on such Occasions, he was condemn'd, and depos'd, in the following Terms:

'The holy Synod assembled in the Metropolis of *Ephesus*, by Order of the most religious and most *Christian Emperors*, and by the Grace of *God*, to *Nestorius* new *Judas*; know that for thy impious *Predications*, and thy *Contumacy* against the *Canons*, thou hast been deposed from all ecclesiastical *Degrees*, the twenty-second of this present Month *June*, according to the ecclesiastical Constitutions.' This Condemnation was sign'd by above 200 Bishops, sent to him, and render'd publick.

The fourth *General COUNCIL*, was that of *Chalcedon*, convok'd, at first, by the Emperor *Marcian*, at the Instances of Pope *Leo*, at *Nice*, in *Bithynia*, against *Eutyches* and *Dioscorus*, but afterwards transferr'd to *Chalcedon*, in the Year of *Christ* 451. It was compos'd of 630 Bishops, according to the Chronicle of *Marcellinus*, and in the Opinion of *Liberatus* and *Photius*; and of 636, according to *Nicephorus*, l. 15. c. 2. the Temple of *St. Euphemia*, built without the City, was chosen to hold that great Assembly; the Seats of the Bishops were placed round the Altar; on the left were seated the Legates of the Bishop of *Rome*, and after them the Bishops; *Dioscorus* of *Alexandria*, and *Juvenalis* of *Jerusalem*, were placed on the right; and in the Middle the Book of the Gospel, upon a high Throne erected for that Purpose. The Emperor *Marcian*, *Pulcheria*, the Senators, the Judges or Commissaries appointed to keep the Order, and maintain the Peace in the Assembly, were placed over-against the Rails which separate the Altar from the Choir.

In the first Session, which began the 8th of *October* of the same Year 451, the Legate of the Bishop of *Rome* told the Assembly, that he had positive Orders to insist that the Fathers should not permit *Dioscorus* of *Alexandria* to sit in the *Council* as Judge, but should be introduced to be heard as accus'd. The Commissaries ask'd what could be objected against *Dioscorus*? *Paschasius* answer'd, that as soon as he should be introduced as accused, he would say what was objected against him; therefore, after some Contestations, the Judges commanded *Dioscorus* to descend from his Seat, and appear in the Middle of the Assembly; where he was accus'd by *Eusebius* of *Dorylea* of having wounded the Faith; that he had unjustly deposed him, and kill'd *Flavian*. *Dioscorus* answered, that a *Council* had been held for the Affair of *Flavian*, and requested, that the Acts of that *Council* should be read, which was granted; but when they came to the Epistle of *Theodosius* to *Dioscorus*, by which he forbid *Theodoret* from assisting at the *Council of Ephesus*; the Judges said, that he should be introduced in this, because he had been rehabilitated into the Episcopacy by the Bishop of *Rome*, and had been commanded by the Emperor to be present. Upon which, the *Egyptian Bishops*,

Bishops, those of *Illyria*, and *Palestine*, cried, that *the Faith was lost*, that the *Canons rejected Theodoret*, that he ought to be turned out as *Master of Nestorius*; that he could not be received, without condemning *Cyril*, against whom he had wrote; that he was a *Judas*, *Enemy of God*, and of *Jesus Christ*. On the contrary, the Bishops of *Pontus*, *Asia*, and *Thracia*, maintain'd, that he had subscrib'd to the last *Council of Ephesus* upon white Sheets of Paper, upon which could have been wrote any Thing; and cried, that the Murderer *Dioscorus* ought to be expell'd. The Noise continuing, the Judges represented to the Bishops, that those Exclamations were beneath them, and availed nothing to the Affair in Question; and that tho' *Theodoret* should be receiv'd in the *Council*, the Accusation against him, if there was any, should remain in full Force. Therefore that Prelate took his Seat, as by Provision, and the Lecture of the Acts was continued. *Dioscorus*, to excuse himself, said, that they had been sign'd and confirm'd by *Juvenalis* of *Jerusalem*, *Thalassius* of *Cæsarea*, who presided with him, and by all the other Bishops of the *Council of Ephesus*. Those who had been present at that *Council*, said, that it was true that they had subscrib'd, but had done it thro' Fear of being maltreated by the Soldiers, which *Dioscorus* had brought into the *Council*; and that, properly speaking, those Soldiers, and not they, had depos'd *Flavian*. Those among the Prelates who favour'd *Dioscorus*, upbraided them for making Use of so scandalous an Excuse; and told them, that 'a *Christian* fears ' no Body; that a *Catholick* who suffers himself to be ' forced to do a Thing which he believes a Sin, is far ' from that *Christian* Constancy, which obliges to die ' in Defence of the Truth: And if a servile Fear was ' to be excus'd, there would be no Martyrs.' Which just Reproaches, obliged those pusillanimous Prelates to ask Forgiveness of the *Council*.

When they had done reading the Acts of the false *Council of Ephesus*, they began to read those of the *Council of Constantinople*; by which it appear'd, that *Flavian* had been entirely orthodox, and *Eutyches* justly condemn'd as a Heretick. *Dioscorus* could not help saying, that the *Council of Ephesus* had justly depos'd *Flavian*, because he confess'd two Natures in *Christ* after the Incarnation. The Bishops said, that nothing was truer; and *Dioscorus* maintaining obstinately the contrary, the Judges of the *Council*, and the Senate, said, that ' if the *Council* thought fit, and ' the most pious Emperor approv'd of it, it was their ' Sentiment, that *Dioscorus* of *Alexandria*, *Juvenalis* ' of *Jerusalem*, *Thalassius* of *Cæsarea*, *Eusebius* of ' *Ancyra*, *Eustathius* of *Beryth*, and *Basil* of *Seleucia*, ' who had the most Credit in the *Council of Ephesus*, ' and had unjustly depos'd *Flavian*, should be depos'd ' in their Turn.' *Eusebius* of *Dorylea*, and several other orthodox Bishops, cried, that *the Judgment was just*; long Tears to the Senate; God holy, God strong, God immortal, have Mercy upon us; long Tears to the Emperors. *Christ has depos'd Dioscorus*; *Christ has depos'd the Murderer*. *The Sentence is just*; the *Council is holy*; God has revenged his Martyr.

The Fathers met again, the 10th of *October*; and at the Opening of this second Session, the Judges represented, that ' in the preceding one, they had acknowledged the Injustice of the Deposition of *Flavian*, and of the other orthodox Bishops; and that ' now they were to establish the true Doctrine of the Faith, for which the *Council* was assembled; that ' they should explain it clearly, without Constraint, ' Partiality, and in Amity to re-unite those who were ' separated by different Opinions; that they declar'd ' to them, that the divine Master of the World (meaning the Emperor), as well as they, believe the *Catholic* Faith which had been left him by the 318 Bishops of the *Council of Nice*; by the 150 of the *Council of Constantinople*, and by the others which ' had preceded, or follow'd.' The Fathers answer'd, that ' no Body had made any other Exposition of ' Faith, and they would not attempt, or think of ' making any other.' Afterwards, the Judges pro-

pos'd, that the Patriarchs should chuse one or two Bishops of their Province, to treat together of the Questions of Faith, which were agitated then, and what they would determine should be received and approved by the Assembly; that if they were all to agree together, the Dispute should be terminated; it not, the Sentiments of the Opponents would be known. But the Fathers rejected that Proposition, and said, that there was no Need of a new Exposition of Faith; that they were forbidden by the ecclesiastical Laws to treat a-new of the Articles already decided, and ask'd, that the Symbol of *Nice*, and that of *Constantinople*, should be read. After it had been recited, they all cried, that it was the *Catholic Faith*, that they all believed it, that they had all been baptized, and they all baptized in it; that it was the true Faith, the holy Faith, and the eternal Faith; that the blessed *Cyril* had taught it, and the Pope *Leo* believed it.

The third Session, held the 13th of *October*, was spent in the three Citations made to *Dioscorus* of *Alexandria*, to appear before the *Council*, to answer the fresh Accusations exhibited against him; but he, having, under several frivolous Excuses, always obstinately refus'd to appear, was at last solemnly depos'd from all ecclesiastical Dignities, either episcopal, or sacerdotal; and all the Bishops sign'd his Condemnation.

In the fourth Session, held the 17th of *October*, the Bishops who had adher'd to *Dioscorus*, having deserted him, ask'd Forgiveness of the *Council*, and subscribed to the Symbols of *Nice*, *Constantinople*, and to the Decrees of the first *Council of Ephesus*, were received to Repentance; in Consequence whereof, *Juvenalis* of *Jerusalem*, *Thalassius* of *Cæsarea*, *Eustathius* of *Beryte*, *Eusebius* of *Ancyra*, and *Basil* of *Seleucia*, took their Places in the *Council*.

In the fifth Session, they prolong'd the Time granted to the obstinate *Eutychian* Monks, to the 15th of *November*. In the same Session, (found in the Greek Copy, and not in the *Latin*) the Differences between *Photius*, Bishop of *Tyre*, Metropolis of the first *Phœnicia*, and *Eustathius* of *Beryte*, were terminated, and *Photius* restor'd to his Right of Metropolitan.

In the sixth Session, held the 22d of *October*, a Profession of Faith was made and publish'd, in the following Terms, related by *Iuvagriu*, l. 2. c. 4.

' When *Jesus Christ*, our Saviour, and Master, instructed his Apostles of what they were to believe, ' he said to them, I give you my Peace, I leave you ' my Peace, that they might all preach the Truth, ' without any Diversity of Sentiments among them ' concerning the Faith.' Then the Symbol of *Nice*, and that of the 150 Bishops, were read; which done, what follows was added: ' The wise and salutary ' Symbol of Grace was sufficient for the Intelligency ' and Confirmation of the Faith. It teaches all that ' is to be believ'd concerning the Father, the Son, and ' the Holy Ghost, and instructs in the Truth of the ' Incarnation those who receive it. But because the ' Enemies of the Truth have invented Heresies which ' destroy the Economy of that Mystery, and that ' some will not have *Mary* call'd the Mother of God, ' and others have mixed and confounded the two Natures, and by that Mixture have subjected falsely the ' Divinity to Passions and Sufferances; this holy and ' œcumenical *Council* willing to deprive them of all ' Means to oppose the Truth, and to maintain it in ' all the Vigour and Strength it has been preach'd ' with from the Beginning, declare that the Faith of ' the 318 Fathers of the *Council of Nice* ought to remain entire, and unalterable. Further, it confirms ' the Doctrine which the 150 Fathers, assembled in ' the imperial City, have publish'd, touching the Substance of the Holy Ghost, with the Design rather ' to support that Doctrine by the Authority of the ' holy Scripture, against those who had undertook to ' destroy the Power of the Holy Ghost, than by the ' Desire of introducing any Novelty. It receives ' and approves the Synodal Letter written by the ' blessed *Cyril*, Bishop of *Alexandria*, to *Agathas*, ' and to the Bishops of the *East*, because they are

very proper to confound the Extravagance of *Nestorius*, and to explain the Symbol to all those who want to understand it. It has joined, with Reason, to those Letters of *Cyril*, that were written by *Leo*, most blessed and holy Archbishop of the great and antient *Rome*, to the holy Archbishop *Flavian*, against the sacrilegious Doctrine of *Nestorius*. That Letter agrees perfectly with the Confession of St. *Peter*, and can serve all the Faithful as a Column to strengthen them in the orthodox Doctrine, because it is contrary to those who divide the Incarnation in acknowledging two Sons. It retrenches from the ecclesiastical Communion those who are not ashamed to subject to Passions and Suffrances the Divinity of the Son of God; it rejects, likewise, those who mix and confound the two Natures of the Son of God. It confounds those who imagine falsely that the Form of Slave he has taken among us, is a celestial Form, or of a Nature different from ours. Lastly, It pronounces Anathema's against those who say, that before the hypostatical Union, there were two Natures, but that after that Union there is but one. Following the Steps of the Fathers, we all teach, with one Voice, and common Accord, that we must confess that *Jesus Christ* our Lord is the only Son of God; that he is true God, and true Man; that he is perfect in one and the other Nature; that as a Man he has a Body, and a rational Soul; that as to his Divinity, he is of the same Substance with his Father; and as to his Humanity, of the same Substance with us, and in all Things like us, Sin excepted; that he has been begotten by his Father from all Eternity, according to his Divinity; and is born, for us, in the last Times, and for our Salvation, from the Virgin *Mary*, Mother of God; that the same *Jesus Christ*, God's only Son, is confessed in two Natures, without Confusion, Division, Separation, nor Coactation; that the Union of the two Natures, far from destroying their Differences, preserve them, rather, with their Properties; that those two Natures subsist by the same Subsistence, as *Jesus Christ* our Lord, God's only Son, and Word of God, who is one, and is not divided into two Persons, subsist; according to what we have learn'd from the Prophets, and from *Christ* himself, and as it is contain'd in the Symbol. After we have establish'd those Truths with all the Care possible, the holy and oecumenical Council has forbade every Body to write, compose, maintain, or teach a contrary Doctrine. That if any Body was presumptuous enough to compose, propose, or teach another Symbol, to those who are converted from the *Paganism*, *Judaism*, or other Superstition, or Heresy, to the Truth: If he be a Bishop, he must be depriv'd of his episcopal Dignity; if a Clerk, he must be expell'd from among the Clergy; if a Monk, or a Laick, let Anathema's be pronounced against him.

This Deliberation pleased much the Emperor *Marcian*, who, to express his Satisfaction to the Fathers, came to the Council at the seventh Session, which was the 25th of *October*, on the Feast of St. *Euphemia*. By the Discourse he made, first in *Latin*, to keep up the Majesty of the Empire; and afterwards in *Greek*, to be understood of all the Fathers; he shew'd, that 'having been rais'd to the Throne by the Conduct of the Divine Providence, his first Care, and his most important Affair, had been that of the Faith; that finding the Church divided, by the heretodox Opinions which some, either by Avarice, or Vanity, had spread among the People, to corrupt the Minds, and alter the Doctrine of the holy Fathers: He had assembled the Prelates from all the Parts of the World, persuaded that they would readily undergo the Fatigues of a long Journey, in Hopes that their Assembly would dissipate the Clouds which Heresy attempted to spread over the orthodox Doctrine; that he conjured them to banish from among them all Spirit of Faction and Partiality, that they might thereby declare to the whole

World, in a pacifick Manner, which was the Truth: That he had assisted at the Council, after the Example of the great *Constantine*, not to shew his Power, but to support by his Authority the Decisions they were to make in Matters of Faith; that there should be no longer any Divisions among the People for the Doctrine, but that they might all honour God with the same Heart, and the same Mouth.'

This Discourse of *Marcian* was immediately follow'd by the loud and repeated Acclamations of the whole Assembly; these Acclamations being ended; and Anathema pronounced a-new against *Nestorius*, *Eutyches*, and *Dioscorus*; *Marcian* gave them to understand, that the *Catholic* Faith having been declar'd by the holy and general Council, according to the Exposition of the blessed Fathers; he wanted to contribute all in his Power towards taking off, for the future, all Occasion of Dispute: That therefore he commanded, that whosoever, either Soldier, Clerk, or Laick, should be found disputing of the Faith, or making seditious Assemblies, if a private Person, should be banish'd from the imperial City; if a Soldier, broke; if a Clerk, depos'd. He added, further, that he had order'd some Regulations to be made, which, to preserve the Honour due to their Reverence, he had reserv'd to them, judging more proper, that they should be publish'd by the Authority of the Synod, than by his Edict; therefore he commanded *Bezonician* to read them.

The first forbids the Monks, several of whom, under Pretence of a solitary Life, disturb'd the Peace of the Church, building for the future any Monastery against the Consent of the Bishop, and of the Master of the Place. He submits them all to the Diocesan, and orders them to remain in their Solitude, and to mind nothing but Fasting and Praying, without troubling themselves about secular or ecclesiastical Affairs, unless their Bishop would employ them on some Occasion.

The second Regulation is likewise against the Clerks and Monks, who, thirsting after Money, take upon them the Care of temporal Affairs, became Farmers, or Stewards of particular Houses; and forbids them to take for the future any such Employment, unless their own Bishop desires them to take Care of the Inheritances of the Church; under the Penalty of incurring, for the first Time, the ecclesiastical Censures; and in Case they continu'd, of being depriv'd of their Dignity.

By the third Regulation the Clerks immatriculated in one Church, are forbidden to go to serve another, unless it be those who have been oblig'd to fly from their Province for some Calamities happen'd to it. The Excommunication is order'd against those who receive a Clerk belonging to another Bishop, and against him who is thus receiv'd, till he returns to his own Church.

After these Regulations had been read, the Fathers ask'd Leave of the Emperor to return to their Churches; but *Marcian* desir'd them to stay three or four Days longer, to conclude all the Affairs which were left undecided.

The Fathers, according to the Emperor's Desire, met again, and held the eighth Session; in which they insisted, that *Theodoret* should anathematize *Nestorius*. That Prelate answer'd, that he had presented several Petitions to the Emperor, and to the Legates of the most reverend Archbishop *Leo*; in which he explain'd clearly his Faith, and ask'd they should be read. The Bishops answer'd, 'We will not have them read over again, but only that thou should immediately anathematize *Nestorius*.' In vain *Theodoret* alledg'd that he had been educated among the Orthodox; that he had preach'd the orthodox Doctrine; that he had condemn'd *Nestorius* and *Eutyches*, and all those whose Faith was erroneous; that he did not care to return to his City; that he wanted no Honour; that it was not for that he was come to the Council, but to justify himself of the Accusation alledg'd against him. That he anathematiz'd *Nestorius*, *Eutyches*, and all those

who made of the only Son of God two Sons. All that could not satisfy the *Council*, and he was oblig'd to pronounce these very Words; *Anathema to Nestorius, and to whomsoever do not call the Virgin Mary Mother of God, and who divide his only Son in two.* The Commissaries, on this Declaration, said, that there was no more Room to suspect *Theodoret*, who had anathematiz'd *Nestorius* in their Presence, and subscribed to their Definition of Faith, and to the Epistle of *Leo*, who had already receiv'd him into his Communion, and judg'd that he ought to be restor'd to his See. All the Bishops answer'd, that *Theodoret* was worthy of his See; that *Theodoret*, *Catholic* Doctor, might return to his Church.

In the ninth Session, held the 27th of October, *Ibas*, Bishop of *Edeffa*, who had been depos'd by *Dioscorus*, was restor'd to his See.

In the tenth Session, the Differences between *Bassian*, Bishop of *Ephesus*, depos'd by *Leo*, and *Stephen*, elected in his Place, were debated; and the Fathers seem'd inclin'd, at first, to confirm the Election of *Stephen*: But the Commissaries said, that they were of Opinion, that neither *Stephen*, nor *Bassian*, were worthy of the See in Question; because, according to all Circumstances, and the Depositions of Witnesses, they had both usurp'd it; but that another should be elected, whose Faith could be found pure, and his Life innocent, to govern the Church of *Ephesus*: That, however, they ought to leave it to the *Council*, to order in that Affair what he should think proper. The Fathers approv'd their Proposition, and order'd that another Bishop should be elected for the Metropolis of the *Lesser Asia*; and that *Bassian* and *Stephen* should retain only the Dignity of the Episcopacy, without exercising their Functions; and allow'd them for their Subsistence, each two hundred golden Sols, which were to be rais'd upon the Revenues of the Church; which two hundred Sols would have amounted to two hundred Ducats.

The twelfth Session was also spent in terminating the Differences between *Sabinian*, Bishop of *Parraba*, depos'd by *Dioscorus* in the *Conciliabulum* of *Ephesus*, and *Athanasius*, elected in his Place. The *Council* restor'd *Sabinian* to his See, and as for *Athanasius*, who was really a very bad Man, tho' by his artifice Complaints he had impos'd upon *Cyril* of *Alexandria*, he was sent to *Maximus* of *Antioch*, and to his Synod, to examine, in the Term of eight Months, the old and new Accusations brought against him; that if they were found true, he should not only be depos'd of the Episcopacy, but subject, likewise, to the Punishment of the secular Laws: And that if he was neither accus'd, nor convicted, in the Term prescrib'd, he should be restor'd to his See, and *Sabinian* retain the Dignity of Bishop, and maintain'd out of the Revenues of the Church of *Parraba*, according to the Determination of *Maximus*.

This Affair being thus terminated, the Pope's Legates, and the Commissaries, quitted the *Council*, but the oriental Bishops stay'd, and made 27 Canons, or 30, according to the *Greek* Copy, for the Regulation of the ecclesiastical Discipline. The *sixth* forbids absolute Ordinations, *i. e.* those made without the Clerk being tied to the Service of some Church, and annulles all those made in that Manner. The *ninth* forbids the Clerk who has a Suit of Law against another, to leave the Tribunal of his own Bishop, or of his Synod, to claim the secular Judges, and subject the Delinquents to the ecclesiastical Censures. The *twelfth* deposes the Bishops, who by their Importunities will obtain imperial Pragmatics to divide the Provinces, which is the Cause that, against the ecclesiastical Order, there appear two Metropolitans in one; and orders, that the Cities to which the Emperors give the Name of Metropolis, shall retain that Title, without Jurisdiction, leaving it wholly to the antient Metropolitan. The *fourteenth* forbids the Readers, Psalmists, or Chantors, to take their Wives from among Sectaries; and orders, that if their Children had been baptiz'd by

Hereticks, they should be presented at Church; and if they are not baptiz'd, they shall not receive the Baptism in their Assemblies; forbidding, likewise, the Orthodox to take Wives among the Hereticks, unless they promise to embrace the *Catholic* Religion. The *sixteenth* excommunicates the Monks and Virgins who marry, and gives Leave to the Diocesan Bishop, if they acknowledge their Faults, to use them with Compassion.

The *nineteenth* orders, that the Bishops shall assemble two Synods every Year in each Province, to remedy the Disorders which might have crept into their Dioceses; and that the absent shall receive a fraternal Correction from their Brethren.

The *twenty-third* Canon orders, that the Defensor of the Church of *Constantinople* shall expel from the City all the Clerks and Monks who having been excommunicated by their Bishops, come to *Constantinople* to excite Trouble in the ecclesiastical State, and in private Houses.

The *twenty-sixth* Canon, to remedy the Abuses which had crept into the Church, where the Bishops handled the Revenues of the Church, as well as the Economists; orders, that every Church which has a Bishop, shall likewise have an Economist, who shall dispose of its Revenues by the Bishop's Order.

All these Canons, and the others which I have not mention'd, were calculated to restore Peace and Order in the Church; but the *twenty-eighth* did set the oriental Bishops, and the Pope's Legates, at Variance; because it was order'd, by it, that according to the Canon of the 150 Bishops who had compos'd the first *General Council* of *Constantinople*, the most holy Church of that City, which was the new *Rome*, should enjoy the Privileges granted to it, and be immediately next in Rank, to the See of the antient *Rome*; so that the Metropolitans of *Pontus*, *Asia*, and *Thracia*, and the Bishops of the Dioceses establish'd among the *Barbarians*, could not, henceforwards, be ordain'd, but by the Bishop of *Constantinople*. The Pope's Legates hearing of that Canon, caus'd the *Council* to be re-assembled, where they complain'd to the Commissaries of the Emperor, that the preceding Day, after they had left the Assembly, the Bishops who had stay'd, had done something which they thought contrary to the Canons, and to the Discipline of the Church; therefore they requir'd, that the Acts should be read, to let the whole Fraternity know the Justice or Injustice of those Ordinances. The Archdeacon *Aetius* answer'd, that it was the Custom, after the principal Things relating to Faith had been terminated in the Synods, (for which they had been assembled) to treat of Affairs of less Importance, which should offer; that the Church of *Constantinople* having some particular ones, the Legates had been desir'd to be present at their Examen, which they had refus'd, excusing themselves on their not having Order to do it; that the Commissaries of the Emperor had judg'd proper that they should be terminated in the *Council*, and that the Bishops left had done it publicly, and juridically. The Commissaries order'd, that the Canon complain'd of should be read, which was found sign'd by all the Bishops. *Lucentius*, one of the Legates, having said that the Subscriptions had been extorted; all the Fathers cried, *No Body has forced us.* *Lucentius* added, that despising the 318 Bishops who had compos'd the *Council* of *Nice*, the Authors of that Canon had mention'd but the 150 of the *Council* of *Constantinople*; that if that Church had enjoy'd that Privilege 80 Years before, as they pretend, they had no Need to restore it; but if not, they had no Authority to establish it. *Aetius* asked him, if the Legates had any Order of Pope *Leo* on that Subject, and if they had, they should shew it. *Bonifacius* read then an Article of his Instructions, written in these Terms: 'Do not suffer the Constitutions made by the holy Fathers, to be violated, or shorten'd, by the Temerity of any whosoever; but be careful to preserve in your Person the Dignity of ours; and if any Body, con-

ding in the Splendor and Power of their Cities, attempt to usurp something new for themselves, oppose it, with all the necessary Resolution.

This Instruction having been read, the Commissioners order'd that the Legates and the Bishops should alledge the Canons on which they pretended their Right was founded. *Paschasius* read the fifth Canon of the Council of Nice, in these Terms: 'The Roman Church has had always the Primacy; let it be decreed, then, that the Bishop of Alexandria shall have the Power in Egypt, because such is the Custom of the Bishop of Rome.' *Ætius* produced the same Canon, but without the first and last Words, which related to the Dignity of the Roman See, as the Legate had cited them. Afterwards, that of the Council of Constantinople was read, which order'd, that the Bishop of that See should have the Honour of the Primacy, after the Roman Bishop, because Constantinople was the new Rome. The Commissioners ask'd, then, the Prelates of the Dioceses of Asia and Pontus, if they had subscrib'd of their own free Wills, or by Compulsion. Seven Asiatick Metropolitans, viz. *Dionysius* of Cisyck, *Florentius* of Sardes, *Marinian* of Sigenades, *Pergamius* of Antioch in Pisidia, *Romanus* of Myrra, *Nunechius* of Laodicea in the first Phrygia, *Critonian* of Afrodisiades in Caria, and the Chiefs of the Provinces of the Hellespont, Lydia, the first and second Lycia, Caria, Pisidia, and Phrygia, and six Metropolitans of Pontus, *Thalassius* of Cæsarea in the first Cappadocia, *Calagerius* of Claudiopolis, *Peter* of Gangres, *Eleutherius* of Chalcedon, *Seleucus* of Amasia, *Eusebius* of Ancyra, and all the other Bishops, protested, that no Violence had been offer'd to them to sign the Canon in Dispute. *Eusebius* of Doryleæ added, that he had read the Canon of the Council of Constantinople to *Leo*, and that he had receiv'd it. Then the Commissioners concluded, that by the Testimonies of the Bishops, and by the Ordinations made by the Bishop of Constantinople, all Primacy and principal Honour should be preserv'd to the Archbishop of the antient Rome, and that after him the Archbishop of Constantinople, which was the new Rome, should have the same Honour. This Opinion was approv'd by the Acclamations of the whole Council, *Lucentius*, the Pope's Legate, excepted, who was reduced to make a Protestation against all that had been done in that Affair, to the Prejudice of the ecclesiastical Discipline; he ask'd, that his Protestation should be inserted in the Acts, that they might make their Report to the principal Bishop of the whole Church, (as they call'd him) who would act as he thought fit, to defend his See against the Injury offer'd to it, and to oppose the Infraction of the Canons. *John* of Sebast addressing himself to the Commissioners, said, *We are all of the Advice of your Magnificence.* And the Commissioners answer'd, speaking to the Legates, *The whole Synod approve what we have proposed.*

Thus was ended the great and celebrated Council of Chalcedon, which has always been held in Veneration by the universal Church; so that the Greeks used every Year to make a solemn Commemoration of it in their Office, for the Month of July.

The Emperor *Marcian*, desiring to join the temporal to the ecclesiastical Authority, had an Edict publish'd (*l. 4. Cod. De Summa Trinit.*) to confirm the Council, forbidding all Persons to dispute any more of the Faith, or to bring in Question the Definitions made, under very severe Penalties. This Edict was address'd to *Sporiatius*; but as, notwithstanding his Edict, the Hereticks continued to make their seditious Assemblies, and to teach their Errors, *Marcian* was oblig'd to address another, in the Month of March, to *Vincomatus*, design'd Consul, by which he renew'd the Prohibitions made in the first, and order'd the Judges to punish severely the Delinquents.

The fifth General Council, is the second of Constantinople, assembled in the Year of Christ 553; of

Pope *Vigilius* 14; and of the Emperor *Justinian* 27.

This fifth General Council is one of the most important Points of the ecclesiastical History, from which the Enemies of the Roman See pretend to draw very great Consequences against the Popes. It is what obliges me to make a sincere and exact Narration of what was transacted in that great Assembly, and I hope without being accus'd of quoting Romances; since I consult none but the best Authors on this Occasion, as I have done on all others.

Evagrius, *l. 4. c. 38.* says, that the Subject of the Convocation of this Council, was, that the Partisans of the Doctrine of *Origen*, having extraordinarily multiplied themselves in the Monasteries of Palestine, and particularly in that called the new Laura; *Eustochius* undertook to rout them out, and, in Fact, succeeded in his Enterprize. Having thus been expelled from their Monasteries, they spread themselves throughout several Places, where they gain'd a vast Number of Persons to their Party. *Theodorus Ascidas*, Bishop of Cæsarea in Cappadocia, who was always near the Emperor, took them under his Protection, made a great Noise at Court, and pretended that there was nothing but Injustice and Impiety in the Proceeding of *Eustochius*. This Bishop of Jerusalem, to clear himself of such Accusations, sent to Constantinople, *Rufus*, Abbot of the Monastery of *Theodosius*, and *Conon* Abbot of the Monastery of *Saba*, both very considerable, as well for their personal Merit, as for the vast Number of Solitaries they had under their Conduct. They were accompanied in their Journey by several others, very little inferior to them in Dignity. When they were arrived at Constantinople, they spoke but of *Origen*, *Evagrius*, and *Didymus*; but *Theodorus*, Bishop of Cappadocia, wanting to elude the Question, propos'd the Affair of *Theodorus*, Bishop of Mopsueste, of *Theodoret*, and of *Ibas*. The first Question propos'd, was, to know if it was permitted to pronounce Anathema against the Dead; *Eutychius*, who was there present, answered, that it was a Question which wanted not a long Discussion, since King *Josiah* had not only caused the Priests of the Devil to be put to Death, but had likewise destroy'd the Tombs of those dead long before. The whole Assembly approved this Advice, which engaged the Emperor to assemble the fifth Council, for the Condemnation of the three Chapters, or the Writings of *Theodorus* of Mopsueste, of *Theodoret*, and of *Ibas*; which met the 4th of May of the Year 553, and where *Eutychius*, lately made Patriarch of Constantinople, presided: There were, besides, two other Patriarchs, viz. *Apollinaris* of Alexandria, and *Domnus* of Antioch, and the Deputies of *Eustochius* of Jerusalem, with several Metropolitans and Bishops, amounting to 160.

When they were assembled, *John* the Silentarius enter'd the Assembly, and presented them with a Writing from the Emperor; in which, after he had explain'd what his Predecessors had done to exterminate the Heresies, he spoke of the Care he had took for the same End, against the Nestorians and Eutychians; in which, however, he had not succeeded, because they defended their Errors by the Writings of *Theodorus* of Mopsueste, of *Ibas*, and of *Edeffa*, and of *Theodoret* of Cyr; which, they said, had been approved by the Council of Chalcedon; that to be divested of that specious Cloak they disguised their Impieties with, he had caused the Writings of those three Authors to be condemned by the Bishops then at Constantinople, and that *Vigilius* himself, Bishop of Rome, had several Times anathematiz'd them; to whom he had sent lately a Writing on that Subject, and expected his Answer every Hour. To this the Emperor added his Profession of Faith, and towards the End desir'd the Fathers to pronounce on these three Chiefs what they thought the most agreeable to the Truth of the Gospel; and not make the least Difficulty to condemn *Theodorus*, whose Name had been for a considerable Time blotted out of the Dypticks of his Church.

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The *Council* had already invited Pope *Vigilius* to come to take his Place among them, and to terminate with them, as he had promised, the Controversy of the three Chapters, which divided the Christian World. He had answer'd, that the next Day he would let them know what he thought of their Assembly. This Answer having been brought to the *Council*, they sent to him the same Deputies a second Time, to desire him to join with them in order to give Peace to the Church; this Deputation was composed of three Patriarchs and sixteen Metropolitans. *Vigilius* gave, this second Time, a positive Answer, that he could not assist at the *Council*, because he had with him but few occidental Bishops, when as the Number of the Oriental was too great; but that he was putting his Opinion in Writing, which he would send to the Emperor. The Bishops were not satisfy'd with this Answer, against which they objected, that the small Number of the western Bishops could not hinder the holding of the *Council*, since in those which had preceded, there were few or none of the western Bishops: That *Vigilius* had some near him of *Illyria* and *Africa*; and that he had promised to *Eutychius* of *Constantinople*, with whom he was in Communion to convoke a *General Council*, to terminate that Dispute. But *Vigilius* could have answer'd them, says M. *Godeau*, Tom. IV. *Hist. Ecclesiast. Lib. 2.* That it had been agreed between the Emperor, and the *Italian* and *African* Prelates, that they should be called to the *Council* in equal Number with the eastern Bishops; and that against this Agreement he could not, nor would hold a Synod with them.

In the second Session, held the 8th of *May*, a Report was made of this Answer, and of the two Deputations the Emperor had sent to *Vigilius*, of the principal Persons of his Court, among whom was *Belissarius*, the *Patrice Liberius*, with the Prelates above-mentioned; and the Judges desired the Fathers not to defer any longer the Examen of the three Chapters for which they were assembled, in order to give Peace to the Church; but before they begun that Examen they did judge proper to send a Citation in form to the Bishops, who were then at *Constantinople*, viz. to *Primasius* of *Adrumetta*, in *Africa*; to *Sabinian*, *Proiectus*, and *Paul*, Bishops in *Illyria*. *Primasius* answer'd, that he would not come to the *Council*, unless the Pope was present; *Sabinian*, *Proiectus*, and *Paul*, that they could not be there while their Archbishop was absent, to whom they were answerable for their Conduct.

The third Session was spent in hearing the Report of those Deputations, and in making a Profession of Faith, whereby the Bishops protested to follow the Decisions of the four *Councils*, of *Nice*, of *Constantinople*, of *Ephesus* the first, of *Chalcedon*; and the Doctrine of the ancient Fathers and Doctors of the Church; *Athanasius*, *Hilarius*, *Basile*, *Gregory* the *Theologian*, *Gregory* of *Nyssen*, *Ambrosius*, *Augustin*, *Theophilus*, *John* of *Constantinople*, *Cyril*, *Leo*, and *Proclus*.

In the fourth Session, the Secretary of the *Council* read the Extracts of the Books of *Theodorus* of *Mopsueste*, which excited the Indignation of the Fathers against the Impieties they were filled with, and great Acclamations for the Prosperity of the Emperor, who had purged the Church of that Zizany. That Reading was sufficient, say the Acts of that *Council*; but however, not to appear to act with too much Precipitation, and to omit nothing in the Examen of that Cause, they deferr'd their Judgment till another Session, which was held the 13th of *May*.

In that Session was read what the ancient Fathers had wrote against him, and particularly *Cyril* of *Alexandria*, the Laws of *Theodosius* and of *Valentinian*, the Requests presented by the Priests and Deacons of *Armenia*, and of *Persia*, to *Proclus* of *Constantinople*; the Answers of that Prelate to the *Armenians*, and the last Synod of *Mopsueste*. There were read likewise, some Epistles of *Theodore* to *Nestorius*, and to *John* of *Antioch*, during, and after the first *Council* of *Ephesus*;

but some of those Epistles were manifestly false and forged by Hereticks, in which *Theodore* congratulated himself after the Death of *Cyril* of *Alexandria*, in Terms beneath not a Bishop only, but a Man of Honour. There wanted no other Proof of that Epistle being spurious, but its being directed to *John* of *Antioch* dead before *Cyril*. The Laws of *Theodosius* and of *Valentinian*, are also related in the *Council*, otherwise, than they are in the Code, where there is no mention made of *Theodorus* of *Mopsueste*, which makes me believe that the Acts of that *Council* have been corrupted in some Places by Hereticks.

Vigilius, as we have observed already, had promised to put his Opinion on the three Chapters in Writing, and to send it to the Emperor; which he did in an ample Manner, answering in his Constitution, Article for Article, to the sixty Errors extracted from the Books of *Theodorus*, which *Justinian* had marked in his Writing, condemning them by the Scripture, and the Authority of the ancient Fathers of the Church; but when he comes to the Persons of *Theodore*, of *Ibas*, and of *Theodore*, he says, that having not been subjected to the Anathema, neither by the first *Council* of *Ephesus*, nor by that of *Chalcedon*, he could not do it. He alledges, to support his Sentiments, the Authority of the Popes *Leo* and *Gelasius*, who shewed, that it was not the Custom of the *Roman* Church to anathematize any Body after their Death, much less Bishops, who had been judged by God. He relates, also, what *Denis* of *Alexandria* had done in the Affair of *Nepos* Bishop of *Egypt*, whose Writings he condemned, because they contained the Errors of the *Millenaries*, but without touching his Person, because he was dead. *Vigilius* adds, afterwards, five Anathemas, against those who should maintain the Errors marked in it; lastly he forbid every body to condemn either *Theodore* of *Mopsueste*, or *Theodore* of *Cyre*, or *Ibas* of *Edessa*; the *Council* of *Chalcedon*, having pronounced nothing against *Theodore*, having received *Theodore*, after he had anathematized *Nestorius*, and restored *Ibas* to his See, and approved his Epistle; or to teach or write against his Constitution: But does not add any Anathema against those who will not be of his Sentiment; to leave himself room to embrace another if it was necessary for the Peace of the Church. The Constitution is dated the 13th of *May*, the same Day the fifth Session of the *Council* was held.

The Cardinal *Baronius* says, that the Emperor to whom it was addressed, sent it to the Bishops. But M. *de Marca*, Archbishop of *Thoulouse*, in the little Book he caused to be printed while he was yet a Secular, and President of the Parliament of *Pau*, deviates from that Opinion, with all the Respect due to the Dignity and Doctrine of so great a Man as was Cardinal *Baronius*. His Reasons do not appear very considerable. The Emperor had very much at Heart the Condemnation of the three Chapters, and it is for that Reason, that in the Writing he had addressed to the Bishops at the Beginning of the *Council*, he had expressly mark'd, that the Pope had condemned them, as it appeared by his Letters to *Aurelian* of *Arles*, and to *Valentinian* of *Tanes*; and by his Sentence against the Deacons *Rusticus* and *Stephen*, which he had caused to be read. He knew very well that his Authority was necessary (says M. *Godeau*) for that Condemnation. In fact, in the Deputations of the *Council* to him, the Prelates alledged it as a Prejudice; therefore could it be supposed that *Justinian* would have been contrary to himself, and would have communicated to them a Constitution whereby the Persons of *Theodore*, *Ibas*, and *Theodore*, were saved from the Anathema; since thereby he had given occasion to the Prelates for excusing themselves from doing what he wanted; therefore he concealed part of the Constitution, and shew'd only the first Part of it, which justified that the Pope had condemned the three Chapters. It is true that in the sixth Session he examined the Reasons alledged by *Vigilius* on the Epistle or Epistles of *Ibas*, but they were so well known and so common ever since the Dispute had begun, by the Writings of those who defended

fended it, and, among the rest, by the Books of *Facundus*; that it was not necessary they should have learn'd them from the Constitution.

In the *sixth Session*, the Epistle of *Ibas* was read, and that of *Proclus* against him; the Judgment of the Synod of *Berite*, and what had happen'd on his Subject in the Council of *Chalcedon*, the Profession of Faith publish'd there, the Acts of the first Council of *Ephesus*, and the Epistle of *Leo* to *Flavian* of *Constantinople*. The Bishops declar'd, that the Epistle of *Ibas* was contrary to it, and that whosoever receiv'd it, offer'd an Injury to the Council of *Chalcedon*; therefore it was condemn'd as heretical, with an universal Applause, and an Anathema was once again pronounced against *Nestorius*, and *Theodore* of *Mopsueste*; tho' there is nothing clearer in the Council of *Chalcedon*, than the Absolution of *Ibas*, who was judg'd catholic. In the Relation of the Definition of Faith, there are Words added which are not in the Original, viz. after our Lord *Jesus Christ* has been mention'd, *one of the Trinity*; which was what the *Scythian* Monks wanted to be said, and what Pope *Hormisdas* had condemn'd.

In the *seventh Session*, *Constantine*, Treasurer of the Empire, caus'd the Letters of *Vigilius* to *Aurelian* of *Arles*, and to *Valentinian* of *Tomes*, his Sentence of Condemnation against his Deacons, *Rusticus* and *Stephen*, who had forsok him because he had condemn'd the three Chapters, to be read.

In the *eighth Session*, they all, with one Voice, condemn'd the Heresies of *Nestorius*, of *Eutyches*, and of *Origen*; the Writings of *Theodore* of *Mopsueste*, of *Theodoret* of *Cyr* against *Cyril* of *Alexandria*, and the Epistle of *Ibas* of *Edeffa*, and pronounced Anathema, and order'd the Deposition against the Clerks and Priests who should have the Temerity to defend them. In this Sentence they inserted twelve Articles, the Belief and Confession whereof they defin'd to be orthodox; but, however, *Vigilius*, and the Bishops who were with them, refusing to subscribe to the Determination of the Assembly, were sent by the Emperor into Exile. *Narses* had *Vigilius* recall'd from that Exile, which was not long; for six Months after the Separation of the Bishops assembled at *Constantinople*, *Vigilius* wrote an Epistle to *Eutychius*, Bishop of *Constantinople*, in Form of Constitution; in which he says, that being better enlighten'd, he had found in the Writings of *Theodore* of *Mopsueste*, of *Theodoret* of *Cyr*, and of *Ibas* of *Edeffa*, several Errors, contrary to the true Faith; that he condemns *Theodore* and his Books, and the Writings of the two others; and that if he has espous'd their Defence before, he retracts, and annihilates all he has done: That he considers as his Brothers, all those who shall condemn them, it being certain, that the Council of *Chalcedon* has never authoriz'd their Blasphemies. The Archbishop of *Tholouse*, already mention'd, gave that Epistle to the Publick, with its Version, which he said to have found in an authentick Manuscript of the King of *France's* Library, which the Copist had placed in that of the Emperor *Michael Paleologue*, in the Year 1276, having wrote it from the Original found in the Library of the *Roman Church*, wrote in the Year 753.

By this Epistle it appears, that *Vigilius* confirm'd the Judgment of the *fifth Council*; it is true, that he appears inconstant in his Conduct, for after he had flood for the three Chapters, he condemn'd them; afterwards, he undertook again their Defence, and, lastly, condemn'd them solemnly by his last Constitution. Several blame much this Variety of Sentiment, and accuse him of having pronounced his last Judgment, to be deliver'd from the Miseries of his Exile, rather than by any new Knowledge of the Truth. But if even that Supposition was true, say the *Roman Catholic* Authors, that would not be a Bar to *Vigilius's* Authority. It is certain, say they, that *Vigilius*, seeing, after the Determination of the Council, where he would not be present, that the Church was more divided than before, could, and even should have

search'd the Means to appease the Schism; and those Means could be no other than the Condemnation of the three Chapters. If it had been a Question of the Faith, there was no Medium to be taken; but it was only a Question of Fact, in which the Council could be mistaken, as well as the Pope; for the Facts which are not reveal'd (continue they) nor transmitted to us by an ecclesiastical Tradition, can't be the Object of our Faith, which wants one of these two Things for its Foundation, which must be certain of a divine Certitude.

The Person of *Theodore* of *Mopsueste*, and the Writings of *Theodoret* of *Cyr*, and of *Ibas* of *Edeffa*, were not of such Importance, to break, for their Sake, the Peace of the Church, and soment a Schism, which offer'd the Hereticks an Opportunity to establish their erroneous Opinions; therefore *Vigilius* was not to blame to have condemn'd them after he had approv'd them. It may seem strange to several Readers, that the Epistle or Constitution of the Pope is not found in the *Latin Acts* of the *fifth Council*; but that might have happen'd, because soon after it had been celebrated, the Acts were translated in *Latin* to be given to the Pope, that he might have seen if he would approve them, or not; and those who were with him had not thought of adding his Epistle to it, which was in his Registers; but as they are lost, his Epistle is lost likewise. That *Latin Interpretation* is very antient, and without Alteration; for in the 14th Act of the *sixth Council* it is said, that it was kept in the Archives of the Patriarchate of *Constantinople*.

It is certain, that in this Council the Bishops condemn'd again *Origen*, *Didymus*, and *Evagrius*, his Partisans; for the Emperor sent to them a Copy of an Edict he had made against him, where his Condemnation is approv'd by *Vigilius*. Cardinal *Baronius* is of Opinion, that they begun by that Examen; but if we consider well the Sessions, we shall find no Room but for the Affair of the three Chapters. What might have deceiv'd that great Man, is, that *Cedrenus* relating what had been done in that Council, mentions first the Condemnation of *Origen*. *Sophronius*, Patriarch of *Jerusalem*, who liv'd a little before the *sixth ecumenical Council*, in his Epistle to *Sergius* of *Constantinople*, professes to receive the *fifth Council*, which confirms that of *Chalcedon*, and exterminates and abolishes the impious Dreams of *Origen*, of *Didymus*, and of *Evagrius* his Disciples; and condemns, after them, *Theodore* of *Mopsueste*, and the two other Chapters. But *Sophronius* has not follow'd the historical Order of the Time; and because the Heresy of *Origen* appears to him of greater Consequence, as in Fact it was, than the three Chapters, he speaks of that before he speaks of these. The Emperor *Constantine Pogonatus*, in his Edict for the Confirmation of the *sixth Council*, relates that Condemnation in the same Manner; and *Cedrenus*, and the other *Greek Authors* after him, have follow'd him. The learned Annalist believes that the *Origenists* have extracted from the Acts the Discussion and Condemnation, and all the other Pieces relating to their Master; but there is not the least Appearance that they have ever been inserted in the *Latin Interpretation* given to *Vigilius*; and the Bishops had not thought it necessary, because they had no other Affair with him but that of the three Chapters. The Popes *Pelagius* the first and second, and *Gregory the Great*, make no mention of it; and they had not omitted it, since that Condemnation had been a very strong Argument to defend the *fifth Council* against those who rejected it: Therefore *Vigilius*, in his Constitution, makes no mention of it, tho' he must have known that it had been made. But as we have heretofore observ'd, he had already approv'd it at the Foot of the Edict of the Emperor *Justinian*; and it was not necessary to mention it.

Thus ended the *fifth Council*, which was remarkable for several extraordinary Events which happen'd during its Celebration, and afterwards; for it was held in Presence of the Pope, tho' he would not assist to it, nor send his Legates. He would not agree to its

Definition, tho' agreeable to his first Sentiments. *Constantinople* saw, with Scandal, the first Bishop of the *Christian* World sent into Exile, by a *Catholic* Emperor, who had much respected the holy See. The Pope wanted the Assistance of *Narses* to be re-call'd from his Banishment, and acquiesced to the Condemnation of the three Chapters which he had improv'd. The Bishops who had forsook him, were reconcil'd to him; and those who had been united to him, left him. The Hereticks whom *Justinian* thought to have brought back to the Church, grew more insolent and obstinate, and the *Catholics* were scandaliz'd, and form'd a dangerous Schism.

The *Sixth General Council*, was the third of *Constantinople*, held in the Year of *Christ* 680; of Pope *Agatho* 3; of the Emperor *Constantine Pogonatus* 13; against the *Monothelites*, i. e. against those who maintain'd that there was but one Will in *Christ*. This Council is call'd in *Trullo*, because assembled in a Hall built in Form of a *Cupola*, call'd, for that Reason, *Trullo*.

This Council began the 7th of *November* of the same Year 680. The Number of the Bishops it was compos'd of, is differently related; the *Greek Annals* reckon 289, *Photius* 170, *Paul the Deacon* 150, and *Balsamon* 171; but in the last Session the Bishops who subscribed, together with the Vicars, and Legates of those who were absent, were 166. The Legates of Pope *Agatho*, *Theodore*, and *George*, Priests, were seated on the left Side, which in the ecclesiastical Assemblies was the most honourable Place; the Patriarchs of *Constantinople* and *Antioch*, with the Legates of the See of *Alexandria*, and those of *Jerusalem*, on the right; the Emperor, Consuls, and Patrices, in the Middle, in the most eminent Places. In the Middle was erected a Throne richly adorn'd, on which was placed the Book of the Gospel, according to antient Custom.

The Legates of the Pope spoke first, and expos'd the Cause of their Arrival; complaining, that the four Patriarchs of the See of *Constantinople*, *Sergius*, *Pyrrhus*, *Paul*, and *Peter*, and with them *Cyrus* of *Alexandria*, and *Theodore Pharan*, had introduced a new Heresy in the Church; teaching, that there was but one single Will, and one single Operation in *Christ*; and desir'd afterwards, that they should account for that Opinion, and deduce the Cause of that Novelty. The Emperor order'd those mention'd by the Legates to give the Reasons they had for the Introduction of the Novelty complain'd of. *Macarius* of *Antioch*, Chief of those Hereticks, answer'd, that he had introduced no Novelty in the Church, but only taught what he had learnt from the sacred Synods, and the antient Fathers; but, however, that he profess'd the Doctrine of the Bishops of *Constantinople*, of *Cyrus* of *Alexandria*, and of Pope *Honorius*. The Emperor, upon that Answer, said, that he would not suffer *Macarius* in the Council, unless he could prove what he had advanced. The Patriarch promised to do it, and ask'd for the Volumes of the five *Œcumenical Councils*, which were kept in the Archives of the Patriarchate of *Constantinople*. When they had been brought to him, the Monk *Stephen*, a Disciple of *Macarius*, read the third of those Councils, which was the first of *Ephesus*; and coming to that Place of St. *Cyril* where that Father says, for his Will is omnipotent; *Macarius* cried out, that that Passage was formal, to prove that in *Christ* there was but one Will: But the Pope's Legates, the Bishops, and even the Judges who accompanied the Emperor, shew'd clearly, that St. *Cyril* spoke in that Place of the Divine Nature which the Son has in common with the Father and the Holy Ghost, and has but an omnipotent Will with them; and that he does not speak in any Manner of *Christ*. They afterwards continu'd to read the Council of *Ephesus*; but as that took up a great deal of Time, the Emperor postpon'd the reading of the other Councils, to the following Session.

This second Session was held the 10th of *November* of the same Year, also in Presence of the Emperor,

the Judges, and all the Bishops who had assisted at the first. They read, then, the Council of *Chalcedon*, and the Epistle of Pope *Leo* insert'd therein; and when they came to that Place where *Leo* explains clearly the two Wills in *Christ*, the Pope's Legates press'd *Macarius* and his Partisans to declare what they had to say against that Passage. Then *Macarius*, addressing himself to the Emperor, replied, I do not say, most potent Lord, that there are two Wills in *Christ*; neither does Pope *Leo* say it in that Passage. The Emperor ask'd him if he understood that Pope *Leo* had said, one single Operation? *Macarius* answer'd, that he did not explain the Number, but spake only of one Operation *Dei virilis*, according to the Authority of *Dennis*. The Emperor ask'd him, again, how he understood that Operation *Dei virilis*? *Macarius* replied, that he added nothing to what *Dennis* had said. At last, the Session ended, by reading what remain'd of the Council of *Chalcedon*.

In the third Session, held the 13th of *November*, was read the fifth Synod, and, at the Beginning, the Epistle of *Mennas* of *Constantinople* to Pope *Vigilius*; where it is said expressly, that there is but one single Will in *Christ*. At which, the Legates of the Pope rose, and said, that that Book was falsified; that the *Monothelites* had suppos'd that Epistle, which was not found in the genuine Acts of the Council: And to prove what they said, they alledg'd, that *Mennas* died in the 21st Year of the Emperor *Justinian*, and the Council was assembled in the 26th Year of the same Prince. The Emperor, his Counsellors, and some Bishops, looking nearer in the Volume, found, in Fact, that three Chapters had been added to it, which had not those Marks usually put on the Sheets of Books; and that the Characters of the first Sheets were very different from those of the last; which shew'd plainly the Falsity. Upon which, the Emperor order'd, that what remain'd of that Epistle should be left unread, and the Council read. When they came to the seventh Session, they read Letters under the Name of Pope *Vigilius* to the Emperor *Justinian*, and to the Empress *Theodora*; in which was contain'd an Anathema pronounced by the Pope against *Theodore*, Bishop of *Mopsueste*, because he did not confess one Person in *Jesus Christ*; where the *Monothelites* had impudently added, and one Operation. Then the Legates exclaim'd, likewise, against that Falsity; and maintain'd, that those Writings attributed to *Vigilius* were suppos'd, and that there was not the least Appearance that if *Vigilius* had been of that Opinion, the fifth Council had not mention'd it in their Profession of Faith, and that they had receiv'd that Pope as orthodox. The Bishops and Judges having carefully examined all Things, pronounced, that there was nothing in those Councils favourable to the *Monothelites*; and that nothing remain'd to *Macarius*, but to prove his Opinion by Passages out of the antient Fathers, as he had promised to do. The Emperor order'd, that he should perform his Promise; and *Macarius* having ask'd Time to do it, it was granted him. Afterwards, *George* of *Constantinople*, and those of his Synod, desir'd, that what Pope *Agatho* and his Synod had wrote to the Emperor, should be read; their Request was granted, but that Reading postpon'd to another Session.

The fourth Session was wholly employ'd in reading the Letters of Pope *Agatho* and his Synod, which were very long.

In the fifth Session, held the 7th of *December*, *Macarius* presented three Cohairs, which, he pretended, contain'd Passages of the antient Fathers, to prove that there was but a single Will, and a single Operation in *Christ*. This Reading took up, likewise, all this Session. The Emperor said, that if he had some other Passages to alledge, he could do it in the following Session.

In the sixth Session, *Macarius* presented a small Book, which, he said, contain'd other Testimonies of the antient Fathers, in Favour of his Opinion. They were immediately read, and the Emperor order'd, that all the Writings produced by that Patriarch, and by the Legates

Legates of the Pope, should be seal'd, and all kept with a great deal of Care. But the Legates maintain'd, that all the Testimonies alledg'd by *Macarius* were falsified and truncated; that the Fathers speak then of the Will of the Trinity, which is but one; and that the *Monothelites* had conceal'd what these Fathers said of the Incarnation of *Jesus Christ*, to prove their Error. They afterwards desir'd the Emperor to order that the original Writings of those Fathers, which were kept in the Archives of the Patriarchate, should be brought in the Council; but the Emperor referr'd that Collation to another Session, which was postpon'd to the Month of *February* of the following Year.

In fact the Council which had been interrupted for two Months, met again the following Year; and the seventh Session, held the thirteenth of *February* 1681, in the same Place, and in Presence of the Emperor and of his Patrices. In it was read the Collection of Passages which the Pope's Legates presented to maintain two Wills and two Operations in *Christ*, and those presented by the *Monothelites*, to support their Error. *George* of *Constantinople* was deputed to compare the Passages quoted by the Legates, with the Originals brought from the Archives of the Patriarchate.

In the eighth Session, held the 7th of *March* (according to the Order of the synodical Acts) the Patriarch *George*, said that he had compared carefully the Passages of the Fathers, alledged by the Legates, with the Originals, and had found them entirely conform, that he likewise conformed his Belief to it, and professed that there were two Wills, and two Operations in *Christ*. Several other Bishops who had assisted to the Collation followed his Example; and are all named in the Acts of the Council. The Fathers, afterwards, asked the Emperor, that *Macarius* should declare if he confessed two Wills, and two Operations in *Jesus Christ*, if he believed what Pope *Agatho* had wrote to him, and if he received the Passages alledged by him? *Macarius* answered, that he did not say, that there were two Wills and two Operations in *Jesus Christ*, but one Operation *Dei virilis*. Upon which the Council, speaking to the Emperor, said, that since *Macarius* refused to obey to what *Agatho* had wrote to him, he ought to rise from his Seat to answer. Then *Macrobios* Bishop of *Seleucia* in *Isauria*, *Eulalius* of *Zenopolis*, *Constantine* of *Dalisanides*, *Theodore* of *Ell*, declared aloud that they did not believe what was contained in the Epistles of *Leo* and of *Agatho*; after which the Writings presented by the Patriarch *Macarius*, were produced. He presented likewise a Profession of Faith which was heretical, confessing but one Will in *Christ*, and said that he would never confess two, was he even to be cut to Pieces, and thrown into the Sea.

In the ninth Session, held the 8th of *March*, *Macarius* and his Disciple *Stephen*, were deprived of the Sacerdoce, *Macarius* having been divested of his Patriarchal Ornaments, and both expelled from the Assembly.

In the tenth Session, the Confession of *Peter* of *Nicomedia* was read, who had retracted his Errors.

In the eleventh Session, held the 20th of *March*, they read the Epistle of *Sophronius*, which was very long, and contained a full and learned Explication of the Catholick Doctrine against the Errors of the *Monothelites*: The Writings of *Macarius* and his Disciple were read afterwards, which were found full of Errors.

The Emperor was not at the twelfth Session, which was held the 22d of *March*; but he deputed, in his Absence, *Constantius* and *Anastasius*, *Politene* and *Peter*, who had been Consuls. He sent to the Council several Papers, among which were found a Letter of *Sergius* Patriarch of *Constantinople*, to *Cyrus* Patriarch of *Alexandria*, and a Letter of the same *Sergius* to Pope *Honorius*, and *Honorius's* Answer. The Council ordered, that all the Letters written on that Subject, as well from *Sergius* to *Cyrus*, *Sophronius*, and to Pope *Honorius*, as from *Honorius*, should be searched in the Archives, and compared with the Originals; which

was done accordingly, and they were found Conform:

They began the thirteenth Session, held the 28th of *March*, by declaring that the Letters of *Sergius* to *Honorius* and to *Cyrus*, and the Answer of *Honorius* to *Sergius*, which were read over again, were contrary to the Doctrine of the Apostles, to the Definitions of the holy Councils, and to the Sentiments of the Fathers of the Church; and that as such they rejected them, and had them in Execration. Toward the End of the Session; more particular Mention was made of *Honorius*, who was anathematized and rejected from the Catholick Church, because it had been discovered in his Letter to *Sergius* that he was of his Opinion, and had confirmed his impious Dogma's.

In the fourteenth Session, held the 5th of *April*, the Epistle of *Mennas* to Pope *Vigilius*, and his Answer were read over again, and some Writings of the same *Vigilius* to the Emperor *Justinian*, which were all found spurious, and anathematized, with those who had falsified the Acts of the seventh Session of the fifth Council, the Original whereof was brought in the Assembly.

In the fifteenth Session, held the 6th of *April*, they pronounced another Anathema against *Macarius* and his Disciple.

In the sixteenth Session, held the 9th of *August*, an extravagant Monk having said in the Assembly, that the human Will had abandoned *Jesus Christ* with his Flesh and Blood, at the Time of his Death upon the Cross, which was the impious Opinion of the *Manicheans*; was excommunicated and expelled from the Council.

In the seventeenth Session, held the 11th of *September*, was read the Definition of Faith, which had been made, by which the Councils of *Nice*, *Constantinople*, *Ephesus*, and *Chalcedon*, were confirmed; the Symbols made in those Councils were recited, to which was added the Condemnation of the *Monothelites*.

The Emperor would be present at the last Session, which was the eighteenth, and which was held the 16th of *September*. In it was published the Definition of Faith newly made, afterwards there were five Copies made of the Acts of the Council, which were subscribed first by the Pope's Legates, and by those of the Roman Synod, by the Patriarchs, by all the Bishops who had assisted at the Council, and lastly by the Emperor, after he had been desired to do it by the Bishops. He gave those five Copies to the five Patriarchal Sees, viz. *Rome*, *Constantinople*, *Alexandria*, *Antioch*, and *Jerusalem*.

The seventh general COUNCIL (according to the Roman Catholicks) is the second of *Nice*, held in the Year of Christ 786, of Pope *Adrian* 15, of *Constantine* and *Irene* 7, against the *Iconoclastes*. This Council had been first convoked at *Constantinople*, in the Basilick of the holy Apostles; but the Bishops being assembled, the Soldiers of the *Pretorian Guard*, who favoured the Opinions of *Constantine*, *Capronimus*, formed a Sedition, and expelled them by Force. The Emperor and *Irene* being not in a Condition to resist that Violence, thought fit to defer the Council to a more favourable Opportunity; but however as they would not leave the Insolence of the *Pretorian Soldiers*, unpunished, they pretended to send an Army against the *Arabs*. The *Pretorian Guard*, were obliged, on that Pretence, to leave the City, and the Emperor, then using his Authority, disarmed them, and sent them to their Houses. He afterwards established new Captains, and made a new Guard. After which the Bishops assembled again in the Month of *May* following, to hold a Council at *Nice* in *Bythinia*. *Photius* says that it was composed of 377 Bishops, the *Menology* of *Basil* reckons 367; and the common Opinion is, that they were to the Number of 350. The two Legates of Pope *Adrian*, who assisted at that Council, were *Peter*, Archpriest of the Roman Church, and another *Peter*, Abbot of *St. Sabas*, *Tharesias*, Patriarch of *Constantinople*, took his Place in the Council, and had

the best Part in all the Good that was transacted in it. From the Emperor, the Patrice *Petronius*, and *John Logothetas*, assisted at it, according to the antient Custom.

In the *first Session*, were read the Letters of the Emperor *Constantine*, and of *Irene* his Mother, to Pope *Adrian* for the Convocation of the *Council*, afterwards *Basile*, Bishop of *Ancyra*, accompanied with *Theodore* and *Theodosius*, offered to the *Council* his Confession of Faith, by which he acknowledged that the Images of *Christ*, of his blessed Mother, and of all the Saints, were to be honoured; he implored the Grace of God, and the Intercession of the Saints, and anathematized the *Council* assembled under *Constantine Copronimus*, which had been called the *seventh general Council*. *Theodore* and *Theodosius* made the same Profession of Faith, after which they were all three received to Repentance, and restored to their Dignities.

In the *second Session*, held the 6th of the Calends of *October*, was examined the Profession of Faith of *Gregory* Bishop of *Neocæsarea*, who had been one of those who had declared more openly against the Images; and his Reception was deferred till another Session. He was accused of having been the Author of the *Council* assembled under *Constantine Copronimus*, and of having mal-treated several Bishops, which rendered him unworthy of being restored. *Leo* Bishop of *Rhodes*, confessed that he was without Excuse. *Gregory* Bishop of *Pisinthæ*, *Hypatius* of *Nice*, and several other Bishops, confessed themselves guilty, and obtained their Restoration. *Leontius* Secretary of State, asked that the Letter of Pope *Adrian* to the Emperor, and to the Patriarch *Tharefias*, should be read, which was done accordingly, with the Acclamations of the whole *Council*. Afterwards the Books of the Fathers, and of the *Councils*, which were kept in the Library of the Patriarchate of *Constantinople* were brought in the Assembly. *Tharefias* caused them to be read, and they began by the Canons, which speak of the Reception of those who return from their Heresy to the true Church. Several Examples were even alledged of those, who in the preceding *Councils* had been maintained in their Dignity, though they had been Hereticks.

In the *third Session*, *Gregory* of *Neocæsarea*, was again examined, and having presented his Request by which he asked the *Council* Forgiveness for his Fault, and confessed, and abjured his Error, the Synod received his Prayers, and his Satisfaction, and he was restored like the others.

In the *fourth Session*, were read some Books of the *Old Testament*, viz. those of *Exodus*, of the *Numbers*, and the Prophet *Ezekiel*; likewise of the New, the Epistle to the *Hebrews*, by which it was proved that there were Images of Cherubims in the Temple of *Jerusalem*. They read also a Testimony extracted from the Writings of St. *John Chrysostom*; another Extract of a Sermon of St. *Gregory* of *Nissen*, preached at *Constantinople*; another of St. *Cyrill* of *Alexandria*; another of St. *Gregory* the *Theologian*; another of *Antipater* Bishop of *Besres*; another of *Asterius*, on the Subject of St. *Euphemia*; another of the Martyr St. *Anastasius*; another Sermon of *Antipater* Bishop of *Besres* on the *Hemorrhoid*, who had erected a Statue of our Lord *Jesus Christ* in the City of *Edessa*, at the Foot whereof grew an Herb which cured all sorts of Maladies. Another of the Epistle of the Abbot *Nilus* to *Heliodorus* and to the Prefect *Olympiodorus*. The *Council* held under *Constantine Copronimus* had mutilated this Epistle, as if *Nilus* had approved but the Image of the Cross.

After they had read the other Authorities of the Fathers, and the Patriarch *Tharefias* had solemnly returned Thanks to God, and to *Jesus Christ* his Son, of the Peace he had given to his Church, all the Bishops, who had prevaricated, cried; 'Being informed of what is Orthodox, we bow to the venerable and holy Images; the Fathers teach that Practice, we are obedient Children, and submit ourselves to the Tradition of the Catholick Church, believing in

' One only God, who must be honoured in the most Holy Trinity. We bow to the venerable and holy Images; *Anathema* to those who are not in the same Disposition; for we follow the antient Law of the Catholick Church, to those who accuse the Christians, *i. e.* who brake the holy Images, *Anathema*; to those who turn against the venerable and holy Images, the Passages of the Scripture pronounced against Idols, *Anathema*; to those who do not bow to the holy and venerable Images, *Anathema*; to those who call the sacred Images Idols, *Anathema*; to those that say the Christians approach Idols, *Anathema*; to those who communicate with Persons who offer Injuries to the venerable and holy Images, *Anathema*; to those that say, that besides *Jesus Christ* our Lord, another has delivered us of Idols, *Anathema*; to those who say that the Catholick Church has, sometimes, received Idols, *Anathema*.'

After the Bishops had pronounced these *Anathemas*, *Euthymius* Bishop of *Sardis*, Metropolitan of *Lydia*, pronounced the Decree of the Union, which ended in these Words: 'We salute the Words of the Lord, the Apostolical, and Prophetical Words, by which we have learned to honour and magnify, first, that which is truly and properly the Mother of God, and who is above all the celestial Virtues, the holy and angelical Virtues, the blessed Apostles, the holy Prophets, the glorious Martyrs, the holy Masters, and holy Men. We desire the Intercession of them all, as those who can reconcile us with God, King of all Men, that we may be like his Servants, and make us live in Virtue. We salute, besides, the precious and vivifying Cross, and the Reliquaries of the Saints. We kiss the holy and venerable Images, according to the antient and holy Tradition of the Church, viz. the Images of *Jesus Christ* our Lord, of the Virgin Mother of God, of the blessed Angels, as they have appeared to the Just, of the holy Apostles, of the holy Prophets, Martyrs, and generally of all the Saints; because by their Pictures they can recal in our Memory the Remembrance of a great Number of very useful Things, and render us Partakers of some Sanctification.'

The Pope's Legates, and of the Patriarchs who were absent; *Tharefias*, all the Bishops, and all the Abbots present signed that Decree.

The *fifth Session* was held the 4th of the Nones of *October*, to shew, that the *Iconoclastes* were not only contrary to the Fathers of the Church, but that they maintain'd the Error of the antient Hereticks, *Jews*, *Samaritans*, and *Saracens*; therefore not only the Books of the Fathers, but likewise those of the Hereticks were brought in the *Council*: And first, *Cosmas*, Deacon and Notary of the Church of *Constantinople*, read the Invektive of St. *Cyril*, Bishop of *Jerusalem*, against King *Nebuchadonazar*, who had demolish'd the Images of the Temple; afterwards was read the first Epistle of *Simeon Stylites* to the Emperor *Justinian*, where he complains of the *Samaritans* who had pulled down the Image of the blessed Mother of God, near the City of *Porphyrea*.

Constantine, antient Deacon of the Church of *Constantinople*, and Keeper of the Charters, had left an excellent Testimony (says Mr. *Godéau*) for the Veneration of the holy Images, in a Sermon preach'd in Praise of the holy Martyrs; where he says, that the Christians represented the Form in which the Word of God, made Man, had conversed with Men, to remember the Salvation he had operated, and not according to the vain Figures of the Divinity, used by the *Pagans*. The Bishops of the false *Council* (as it is called by the *Roman* Catholicks) where the Worship of the Images had been abrogated, had cut, in that Book, the Leaves where that Authority was written, and produced it thus mutilated to their *Council*. The holy *Council* pronounced *Anathema* against those who had cut those Leaves, and the Secretary *Leontius* made them observe that the same Book produced then in the Assembly had Images on the Covering.

† Afterwards

Afterwards the Monk *John*, Legate of the Patriarchs of the East, represented, that the *Iconoclasy* had been introduced in the *Christian Church* by *Ezid*, Prince of the *Saracens*, deceiv'd by the false Prophecies of a *Jew*, call'd *Sarantapichys*; by *Constantine*, Bishop of *Natolia*; and afterwards by *Leo Isauricus*, and *Constantine Copronimus*. That therefore the *Iconoclastes* were to be consider'd as *Jews* and *Saracens*, rather than as *Christians*.

In the *sixth Session*, the Images of our Lord, of the blessed Virgin, and of the other Saints, were brought in the Assembly, and saluted, with repeated Acclamations, by the whole Synod. Afterwards, *Gregory*, Bishop of *Neocesarea*, read the Acts of the Council held under *Constantine Copronimus*, which he had compiled; and *John*, Deacon of the Church of *Constantinople*, and Chancellor, read the Refutation he had made of them. It is printed at Length, in the Volume of the *Councils*, and worthy of being read; but its Prolixity hinders me from inserting it here.

The *seventh Session* was held the 3d of the Ides of *October*, and *Theodore*, Bishop in *Sicily*, read solemnly the Decree abovemention'd, which was sign'd by the Pope's Legates, and the Patriarchs of the East; and the Synod added several *Anathema's*, and several Acclamations, in these Terms: To the Council raving against the holy Images, *Anathema*; to *Theodosius*, false Bishop of *Ephesus*, *Anathema*; to *Sisinnius*, call'd *Pasilla*, *Anathema*; to *Basile*, called *Tricacabes*, *Anathema*; to *Anastasius*, to *Constantine*, to *Nicetas*, who successively have occupied the Throne of *Constantinople*, *Anathema*; as to new *Arius*, new *Nestorius*, and new *Dioscours*; to *John* of *Nicomedia*, and to *Constantine* of *Natolia* Heresiarchs, *Anathema*: They have annihilated the Images of the Lord, and of his Saints, and the Lord has annihilated them; to him who will not confess that the Humanity of *Jesus Christ* was *circumscript*, *Anathema*; to him who refuses to admit of the Histories, and evangelical Truths represented by Pictures, *Anathema*; to him who will not kiss them, and honour them, as made in the Name of the Lord, and of his Saints, *Anathema*; to him who will reject the Tradition, either written, or not written, *Anathema*. Let the eternal Memory of *Germain* orthodox, of *John*, and of *Gregory*, for ever be blessed: The holy Trinity has glorified those three Men, whose Doctrine we wish to deserve to follow, by the Mercy and Grace of the first great Pontiff *Jesus Christ* our God, and by the Intercession of our Lady the holy Mother of God, and of all the Saints, *Amen*.

After these Acclamations, the Council approved the six first *General Councils*, and the Symbol of the *Catholic Faith* was recited, with these Words, who PROCEEDS FROM THE FATHER, AND FROM THE SON. Afterwards, was recited the Decision of the Council on the Veneration of the holy Images, which was subscrib'd by all the Bishops.

The *eighth Session* was held the 10th of the Calends of *November*, at *Constantinople*, in the Palace call'd *Magnaaura*. The Emperors call'd thither all the Bishops of the Council to hear from their Mouths how Things had been transacted at *Nice*. High Chairs were erected for *Constantine*, and *Irene* his Mother. This eighth Session was not properly synodical, but a Convocation of Ceremony, in which nothing was defin'd relating to the Doctrine. The *Greeks* and the *Latins* acknowledge but seven Sessions in this Council, the Acts thereof having been approved by *Constantine* and *Irene*, the Bishops were sent, by them, to their Dioceses, loaded with Presents.

This Council, tho' consider'd as *œcumenical*, by the *Catholics*, and confirm'd by the Pope; has, notwithstanding, been expos'd to a great many critical Censures, and even rejected by several. Among the *Greeks*, *Theodore*, a Monk of the Monastery of *Stade*, reprimands it for having receiv'd and restor'd the *Iconoclaste* Bishops. But the most considerable Adversaries of that Synod were some *French* Bishops, who in the Council of *Frankfort* assembled some Time after, condemn'd it, because it had order'd that the holy

Images should be ador'd. *Agobardus*, Archbishop of *Lions*, compos'd a Book on that Subject, in which he attempts to prove that it is not permitted to *Christians* to have Images; by which, says he, the Faith is violated, and Hope trusted in those visible Things; so that it seems as if the *Christians* were oblig'd to honour them, they had rather changed from *Simulachres*, than abandon'd the Idols. Lastly, He refutes the Answer of those who said, that in honouring the Images of the Saints, they did not address their Honours to those Images, but to the *Prototypes* represented by them; and concludes, affirmatively, that whosoever honours a Picture, or a Statue, does not worship God sincerely, honour neither the Angels, nor the Saints, but only their *Simulachres*. *Jonas*, Bishop of *Orleans*, was of the same Opinion, in his Answer to *Claudius*, Bishop of *Turin*, who accused the whole Church of Idolatry, because of the Worship of the Images.

In that Council were made 22 Canons, on various Points of the ecclesiastical Discipline.

The *second Canon* orders, that all Bishops should have the whole *Psalter* by Heart, read distinctly, as well the sacred Canons, as the holy Gospel, the Book of the divine Apostles, *i. e.* the Epistles of *St. Paul*, and all the holy Scripture; because the true Discipline of the divine Scriptures, and the Words of the Lord, are the Substance of Priesthood.

The *third Canon* declares null, the Election of Bishops, Priests, and Deacons, made by Princes; and this was according to the antient Rule; which says, 'If a Bishop using the secular Powers, obtains, by their Means, a Church, let him be deposed.'

The *fourth Canon* condemns the violent Exactions of several Sums of Money made by some Bishops on their Clerks.

The *seventh Canon* deposes the Bishop who has consecrated a Church, without putting in it some *Reliques* of the Martyrs, as transgressing, thereby, the ecclesiastical Tradition, which was very antient in the *Greek Church*.

The *tenth Canon* forbids private Chappels in the Palaces of the Great, where some Priests used to recite the Liturgy, and forsake their Parishes. It forbids, likewise, the Clerks call'd Majors, *i. e.* who have some Dignity in the Church, to take Care of the Affairs of the Great, under Penalty of Deposition; and chuses rather that they would keep Schools, to teach Children the divine Scriptures, since it is for that they have obtain'd the Sacerdoce.

The *thirteenth Canon* orders the Restitution of the episcopal Houses and Monasteries, which under *Constantine Copronimus* had been chang'd into Inns and Cafens for Soldiers.

The *fourteenth Canon* forbids the Clerks who have receiv'd the *Tonsure*, but not the Imposition of Hands by the Bishop, to do the Office of Reader in the Church; and orders, that the same should be observ'd among the Monks.

The *fifteenth Canon* forbids the Clerks to take two Services in two Churches, which we call, at present, Plurality of Benefices, because it is a Sort of Commerce, and a dishonourable Gain, contrary to the Custom of the Church.

The *sixteenth Canon* forbids to the Clerks, and to the Bishops, the Vanity and Pomp in their Clothes.

The *nineteenth Canon*, to remedy the Abuse which reign'd then, says, that the Crime of Avarice is become so common among the Prelates of the Church, that a great Number of Men and Women, who were esteem'd Persons of Piety, and call'd Religious, had been deceiv'd in forgetting the Command of God; and that Gold was given to make Profession of the religious and solitary Life. If, therefore, says this Canon, a Bishop, or an Abbot, or some other Ecclesiastick, is found convicted of that Disorder, he must either abstain from it, or be deposed, according to the second Canon of the Council of *Chalcedon*. That if an Abbess is found guilty, she must be expell'd from the Monastery, and confin'd in some other Place to do Penance. That the same must be observ'd with

Regard

Regard to an Abbot, who has not yet receiv'd the Priesthood. And as to the Things given by Parents to Children, in Form of a *Dot*, or what Children offer or consecrate to God as Possessions belonging to them; that whether they stay in the Monastery, or go out of it, those Possessions must remain, according to the Promise they have made.

The *twentieth Canon* condemns the double Monasteries, that is to say, those which contain'd Men and Women, as scandalous, and giving Occasion to Sin. They were very antient, and we learn from the History of *Lausiacus*, that there were such Monasteries of the Order of *St. Pachom*, which were only divided by the River *Nile*. The Emperor *Justinian* parted them, by a Law insert'd in the Code; 'because, says he, they gave Means to the Monks to converse every Hour with the Nuns.' The Canon we mention excepts the Monasteries of *St. Basil*, and will have them subsist; but those Monasteries were so well regulated, that there was nothing to fear.

The *Eighth General Council*, is the fourth of *Constantinople*, convok'd in the Year of *Christ*, 869; of *Adrian II*, 2; of *Louis II*, Emperor of the West, 14; and of *Basil*, Emperor of the East, 3; for *St. Ignatius*, Patriarch of *Constantinople*, against *Photius*. It was assembled in the Church of *St. Sophy*, and was compos'd, at first, but of the Legates of Pope *Adrian*, viz. *Donatus*, Bishop of *Osty*; *Marin*, a Deacon; and *Stephen*, Bishop of *Kepi*: Of *Ignatius*, Bishop of *Constantinople*, twelve Bishops who had always stood by *Ignatius*, during all his Persecutions; of the Archdeacon *Joseph*, Legate of the Patriarch of *Alexandria*; of *Thomas*, Archbishop of *Tyre*, Legate of the Patriarch of *Antioch*; and of *Elias Priestre*, Legate of *Theodore*, Patriarch of *Jerusalem*. It began the 3d of the Nones of *October*, in the Presence of the Senate, and of several Patrices, sent thither by the Emperor, to keep the Peace, make Propositions, and collect the Votes. A Cross was expos'd in the Middle of the Assembly, and the Book of the Gospel placed on a Throne, according to the antient Custom. As soon as they were all seated, the Patrice *Babanes*, Vicar of *Bazile*, said, that the holy Emperor had address'd to the Synod a Writing (or Memoir) which he desir'd should be read publicly; to which the Pope's Legates, and those of the Patriarchs, consented. Therefore *Theodore*, Secretary of State, read the Letters of the Prince to the Synod, by which he protested, that 'ever since his Accession to the Empire, his most ardent Desire had been to pacify the Church of *Constantinople*, by the Convocation of a general Council; that therefore he intreated the Legates, and the other Bishops present, to contribute to his Design, and to renounce all Passion, either of Hatred, or Love, to terminate those Differences which had so long afflicted the Church of *Constantinople*.' *Babanes* ask'd, afterwards, of the Pope's Legates, the Letters of their Legation. The Legates answer'd, that the Synod ask'd them a new Thing, which had never been practis'd before; that, notwithstanding, they had Letters of Pope *Adrian*, directed to the Synod, which contain'd their Legation; which, to shew the Sincerity of their Conduct, they desir'd might be read. The Deacon *Marin*, one of the Legates, read them in *Latin*, and *Damian*, Clerk, and Interpreter of the Prince, translated them into *Greek*; which done, the Pope's Legates, and the Synod, requir'd, that the Letters of the Vicars of the Patriarchs should be read, to know their Commission; which was done, and they were found in due Form. The Legates caused the Writing compos'd by Pope *Nicholas*, by which he condemn'd the Schism of *Photius*, and asserts the universal Supremacy of the *Roman See*, to be read. *Adrian* had order'd, that all the Bishops who had communicated with *Photius* should subscribe to it, before they could be reconcil'd. It was first read in *Latin*, by *Damian*, to do Honour to the *Roman Church*, and afterwards in *Greek*, by the Deacon and Notary, *Stephen*.

The Archbishops and Bishops who had communicated with *Photius*, by the Artifices and Torments he

had employ'd to force them to it, came, and thr themselves at the Feet of this Council, and ask'd Forgiveness; and, by the Intercession of the Emperor, and the Advice of the Pope's Legates, they were forgiven, and took their Places with the others.

Thus the Council, which was, at the Beginning, but very small in Number, was found compos'd, at last, of 202 Bishops. Those who were thus receiv'd, offer'd a Memoir to the Synod, which contain'd, first, the Praises of Pope *Nicholas*. Secondly, They exaggerated much the false Synod of *Photius*, in which that pretended Patriarch had loaded so good a Pope with Calumnies. Thirdly, They condemn'd his Pride, as that of an Heretick and Schismatick; having call'd himself Patriarch, and Bishop of Bishops, and having forced all the Bishops of the East to subscribe to his Vanity. Fourthly, They condemn'd what had been attempted against the Patriarch *Ignatius*, and the incredible Torments he had made him suffer. It was ask'd, in whose Hands those Bishops should make their Abjuration, and put the Copy thereof? The Patriarch *Ignatius*'s Opinion was, that it should be put upon the Book of the Gospel, taken afterwards from thence, and put in his Hands; which was done accordingly, and the Patriarch *Ignatius* restor'd them the *Pallium*; and they all took their Places in the Council. The Priests who had been consecrated by *Ignatius* and *Methodius*, enter'd afterwards, as well as the Deacons, and Subdeacons; who, after they had acknowledg'd their Faults, ask'd Pardon, and sign'd the Formula presented to them, were all restor'd to their Degrees.

In the third Session, held the 5th of the Ides of *October*, all the penitent Bishops who had been received and reconciled, were present, with *Theodore*, Metropolitan of *Caria*; but it being discover'd afterwards that he had sign'd the Deposition and Excommunication of Pope *Nicholas* made by *Photius*, he was rejected by the whole Synod. In this Session the Pope's Legates said, that they had been inform'd, that some of those who had been consecrated by *Ignatius* and *Methodius*, refused to subscribe to the universal Supremacy of the *Roman See*; therefore they ask'd, that it would please the Synod, to send Deputies to call them to the Council, and invite them to subscribe. This Proposition pleased the Legates of the patriarchal Sees; and, accordingly, *Theodulus*, Bishop of *Ancyra*; *Nicephorus*, Metropolitan of *Nice*; *Nicetas*, of *Athens*; *Nicephorus*, of *Damas*; and *Metrophanes*, of *Smyrna*, were sent to those Bishops, who refused to sign the Pope's Formula, which was presented to them, saying, that their Signature was not a Thing necessary; but went to the Patriarch *Ignatius*, and to the Emperor, and remonstrated to them, that they ought not to have suffer'd that the Church of *Constantinople* should become, in some Measure, the Slave of that of *Rome*. The Emperor, mov'd at that Complaint, order'd, that some of those who were appointed to serve the Legates, should steal the Signature, which was done accordingly, while the Legates were abroad. They complain'd of it to the Emperor, and remonstrated to him, that 'he had not done well to command that Theft; that it was beneath the Imperial Majesty to command a Thing which he would destroy afterwards, or to destroy what ought not to have been destroy'd: That if he had been in the wrong to consent to the Signatures, he should have shew'd publicly that he repented, and destroy what he had done, not in secret, but in the Assembly; and that if he had had any Reason to procure those Signatures, he was not to have consented that they should be stolen, and hidden: That as for their Part, they could not return to *Rome* without them; and for his, he should have no Merit for what he had begun to do for the Good of the Church.' The Emperor, mov'd at their Discourse, return'd the Signatures, and order'd them to present them to the Pope, that all those who had sign'd might be kept in their Duty.

The fourth Session began the 1st of the Ides of *October*,

October, and lasted two Days. The Patrice *Babanes* said, that there were two Bishops consecrated by the blessed *Methodius*, call'd *Theophilus*, and *Zacharias*; who communicated with *Photius*, and said, that the *Roman Church* had receiv'd him; that therefore he desir'd that the Synod would be pleas'd to give them Leave to enter the *Council*, in order to proceed a-new to their Judgment. The Pope's Legates oppos'd that Demand, and deputed to them *Pancratius*, their Clerk, and *Ananias* Clerk of the eastern Legates, to ask them by whom they had been ordain'd, and with whom they communicated? They answer'd, they had been consecrated by *Methodius*, and communicated with *Photius*; which being reported to the Synod, all the Bishops cried, *Let their Portion be with Photius*; and were of Opinion, that they ought not, nor should be heard. But *Babanes* would not be of the same Sentiment; on the contrary, he insist'd that they should be heard, and said plainly, that 'neither he, nor the other Senators, whom the Emperor had sent to be present in the *Council*, would sign the Acts, until the accused Bishops and *Photius* had been convicted in their Presence, and reduced to the Impossibility of answering to what could be objected to them on their Condemnation by the *Roman Church*, that the only Means to confound them and pacify the World was 'to hear them.' All the *Greek Bishops* approved his Proposition, and said that their Opinion was that *Theophilus* and *Zacharias* ought to be examined, that if they could justify themselves they might be received, and if condemned, the whole World might approve their Condemnation. The Contestation on that Subject was very long, but at last the Pope's Legates consented that they should enter the Assembly, not to proceed anew to their Judgment, but they may hear the Epistle of Pope *Nicholas*, to which the Patrice *Babanes* acquiesced. Being introduced in the Synod, they were asked if they would subscribe to the Formula sent from *Rome*? they answer'd, 'That they would not so much as hear it read, and that they were come to the Synod, because commanded by the Emperor, and were there only to obey him.'

The *fifth Session*, was celebrated the 13th of the Calends of *November*. The Emperor sent *Photius* to the *Council*; and when *Paul*, Keeper of the Charters, had inform'd the Assembly that he was at the Door, they were of Opinion to send Laicks to call him in, not judging it proper to send Bishops, which had been treating him as a Bishop, when as they consider'd him but as a Laick, excommunicated by the *Roman Church*. Accordingly five Laicks came to him, to whom he said, that he was surpriz'd they call'd him then to the Synod, when they had never mention'd it to him before. That he was not come there of his own Accord; and afterwards made use of these Words of the *Psalms*, xxxix. 1. *I will take heed to my Ways, that I sin not with my Tongue*. That was reported to the Pope's Legates, who said, 'We have not call'd him here to learn something from him, but to end in his Presence the Persecution he had excit'd against the *Roman and Eastern Church*.' When introduced in the *Council*, he was ask'd 'if he receiv'd the Constitutions of the *Roman Church*?' To which he made no Answer. He was told, That his Silence would not hinder his Condemnation. To this he replied, neither could *Jesus* by his Silence avoid being condemn'd. God will hear my Voice, tho' I be silent. After which he could never be perswaded to answer any Question whatever. The Patrice *Babanes* press'd him to speak, and to say what he could in his own Justification. But *Photius*, having compar'd himself all this while to *Jesus Christ* when traduced before *Caiaphas* and *Pilate*, answer'd, 'My Justifications are not of this World; if they were of this World, you would see.' The Patrice *Babanes*, interrupting him, told him, 'We see that Confusion and Fear have made thee mad, and that thou dost not know what thou say'st; therefore the holy Synod gives thee some Time to think what thou art to do for thy Salvation, and command thee to return again.'

The Emperor assist'd at the *sixth Session*, celebrat'd the eighth of the Calends of *November*, where those call'd the Bishops of *Photius* were introduced, and excit'd even by the Emperor himself, who made a long Discourse full of Sentiments of Generosity, Humanity and Compassion, to submit themselves to the Synod, in order to be absolv'd of the Excommunication they had incur'd. But all that was said made no Impression on them, and they continued obstinate.

The ten Days granted to *Photius* being elapsed, the *Council* met again with the Emperor the 29th of *October*. *Photius* having been forced to come to the Assembly, enter'd it, with *Gregory* of *Syracuse*. After he had been once more exhort'd to Repentance; and found obstinate, the Deacon *Stephen* ascend'd the Pulpit, and pronounc'd, by the *Council's* Orders, several *Anathema's* against *Photius* a Courtier and an Usurper: *Anathema* to *Photius* Laick; and a Lawyer; *Anathema* to *Photius*, Tyrant and *Neophite*; *Anathema* to *Photius* schismatick and condemn'd; *Anathema* to *Photius* Parricide, Inventor of Lies, and of perverse and pernicious Dogma's: *Anathema* to *Photius*; new *Maximus* Cinick; *Anathema* to the new *Dioscorus*, new *Judas*; *Anathema* to all his Partisans and Adherents; *Anathema* to *Gregory* Bishop of *Syracusa*; *Anathema* to *Eulampius*, deposed and schismatical; *Anathema*, &c.

In the *eighth Session* they began to speak of the *Counciliolum* of *Photius*, and of the Signatures he had extorted; which were all burnt in the *Council*, by the Emperor's Orders, together with all the Writings against Pope *Nicholas*, and all the Acts of the Synod, and all the Sentences against the Patriarch *Ignatius*. Afterwards the Deacon *Stephen*, pronounc'd in the *Council* the *Anathema's* which the Pope's Legates had given him against the *Iconoclastes*, and extended them to all Sorts of Hereticks. 'Anathema, to all those who receive the bad Reasons of the Heresy; *Anathema* to those who use against the Images what the Scripture says against the Idols; *Anathema* to those who call Idols the sacred Images; *Anathema* to those who say that the Christians adore Images as Gods; *Anathema* to those who communicate with them; *Anathema* to those who offer the least Injury to Images; *Anathema* to those who say that besides our Lord *Jesus Christ* another had deliver'd us from Idols; *Anathema* to those who say that the Catholic Church has formerly received Idols; *Anathema* to *Anastasius*, *Constantine*, and *Nicetas*, Patriarchs under the *Isaurian* Emperors; *Anathema* to *Theodore*, *Anthony*, and *John* who have succeeded one another in Impiety; *Anathema* to *Paul* turn'd *Saul*, to *Theodore* call'd *Gasta*, to *Stephen* *Molata*, and their Partisans; *Anathema* to *Theodore* *Christian*; who has no Reason thinks he speaks rationally; to *Laludius*, and all those either Bishops, Priests, or Monks, who have the like Sentiments, *Anathema*.' The eighth Session was ended by these *Anathema's*.

In the *ninth Session*, celebrated the Year following, the Eve of the Ides of *February*, were examin'd those who under the late Emperors, had serv'd as false Witnesses against the Patriarch *Ignatius*, and most of them were order'd to do Penance for seven Years successively, reserving however (according to the ancient Custom of the Church) the Power to the Patriarch *Albanasius*, to abridge the Time of their Penance.

The *tenth Session* was held the last Day of *February*, where the Embassadors of *Louis* Emperor of the West; and those of the King of the *Bulgarians* assist'd. First they read the twenty-seven Canons which the *Council* had made for the good Order of the Church of *Constantinople*, and in favour of *Ignatius* against *Photius*.

The Canons and the Decree made by the *Council*, having been read, the Emperor *Basil* ask'd the Bishops if they were all agreed, they answer'd, that those were their Sentiments; that they all consented, and were ready to subscribe to them; that it was the Judgment of the Truth, the Decree of Justice, and the ecclesiastical Ordinance. When they came to the Subscriptions the Pope's Legates want'd the Emperor to sign first, but *Basil* said, after the Example of *Constantine*

the Great, of *Theodosius*, and of *Marcian*, that he would sign after the Vicars of the Patriarchs, since it was the Pleasure of the Synod. The Patriarch *Ignatius* signed before the Vicars of *Alexandria*, *Antioch*, and *Jerusalem*, and after them all the Bishops in their Rank. There were five Copies made of the Acts of the Council: One for each Vicar of the Patriarchs. After these Subscriptions, the Emperor asked the Senate, the Patrices, and the Magistrates, their Sentiment of the Council. *Theodore Proconsul*, and all, after his Example, answered that they receive it as legitimate, and that they anathematized those it had anathematized.

This *eighth Council*, is received as oecumenical by all the Catholics, and is rejected by the *Greeks* who are not conformed to the *Roman* Catholick Church, who in lieu thereof place the false Council assembled by *Photius*, after *Ignatius's* Death. *Marcus* of *Ephesus*, in the Council of *Florence*, mentions this last Council instead of the first; and Cardinal *Baronius* complains that Cardinal *Julian* who disputed against him, had not strenuously enough defended that Council, which is very favourable to the *Roman* See: We have it in *Greek* and in *Latin*, the Library-keeper *Anastasius*, is Author of the last, and in his Copy there are several Things found which are not in the *Greek*; but notwithstanding, it cannot be suspected, because *Anastasius* was present at the Council, and has wrote nothing but what he was an Eye-witness to. Antiently the Popes in the Profession of Faith they were obliged to make before their Consecration, protested to acknowledge and submit themselves to the Decisions of the general Councils, among which this was one.

Note, that the other general Councils, were all convoked by the Pope, where he presided either in Person or by his Legates, and all assembled in the *Latin* Church, and of Prelates of the *Latin* Church, which considered then the *Greek* Church as schismatical.

The first of these general Councils, is the *first of Lateran*, assembled in 1119, under Pope *Calixtus II.* and *Hen. V.* Emperor of the *West*.

The *second*, is the *second of Lateran*, assembled in the Year 1139, under Pope *Innocentius II.* and the Emperor *Conrad III.*

The *third*, is the *third of Lateran*, under Pope *Alexander III.* and the Emperor *Fredericus Cœnobarbus*.

The *fourth*, is the *fourth of Lateran*, in the Year 1215, under *Innocentius III.* and the Emperor *Frederick II.*

The *fifth*, is the *first general Council of Lyons*, assembled in the Year 1245, under Pope *Innocentius IV.* where the Emperor *Frederick* was deposed, and the Expedition for the Recovery of the Holy Land resolved upon.

The *sixth*, is the *second general Council of Lyons*, under Pope *Gregory X.* for the Union of the *Greeks* with the *Latins*.

The *seventh*, is the *general Council of Vienna*, under Pope *Clement V.* and *Philip the Fair*, King of *France*, where the Order of the Knights *Templars* was abolished.

The *eighth*, is the *general Council of Constance*, occasioned by a Schism in the *Roman* Church, where *Gregory XII.* abdicated freely.

The *ninth*, is the *general Council of Florence*, under *Eugenius IV.* for the Union of the *Greeks* with the *Latins*.

The *tenth*, is the *fifth general Council of Lateran*, begun in the Year 1511, under Pope *Julius II.* and ended in 1518, under *Leo X.*

The *eleventh* is that of *Trent*, convoked by Pope *Paul III.* in 1542, (*Charles V.* of the House of *Austria*, being then Emperor, and *Francis I.* King of *France*) by a Bull dated the 22d of *May*, in which, after he had exposed all that had been done during 24 Years for its Convocation, in order to determine the Points of Doctrine disputed for a long Time, with so much Scandal, and to reform the Abuses which had been

introduced into the Manners and the Discipline, he admonishes all the Christian Princes, especially the Emperor, and the King of *France*, whom he treated with equal Marks of a paternal Affection, to send all the Bishops of their Dominions, and all others who have any Right to assist at it, for the first Day of *November* of the same Year. But it must be confessed that after having waited so long to convoke and begin that Council so often called for, a less favourable Occasion could not have been chosen to celebrate it: For the War between the Emperor and the King of *France* was carried on, then, not by a Motive of Glory, of Interest, or of Ambition, as before, but by a Spirit of Hatred and Animosity against one another; so that as there was no Security to travel either by Sea or Land; and that, afterwards, the Bishops of *France*, *Spain* and *Germany*, and even those of *Italy*, a little distant from *Trente*, were afraid to undertake the Journey; the Pope, after his Legates, had waited in vain more than six Months, was obliged to put off the Council to a more proper Time.

That Time was the 13th of *December* 1545, the third Sunday of the *Advent*. This Council was opened with all the Solemnities and Ceremonies used on such Occasions. Therefore after a Fast-day, and a general Procession, from the Church of the Holy Trinity to the Cathedral dedicated to St. *Vigilius*, Bishop of *Trente*, where the Sessions of the Council were held, after the Mass sung by Cardinal *Monti*, the first of the three Legates (who were the Cardinals *John Mary Monti*, *Marcellus Cervini*, called the Cardinal of the Holy Cross, and *Reginald Pool*, a Prince of the Royal Blood of *England*) after the Harangue pronounced by the famous *Cornelio Musso*, Bishop of *Bitonte*, and the Exhortation made by the Legates to the Fathers of the Council, to engage them to a serious Reformation of Manners; the first Session was celebrated, where there were with the Legates but four Archbishops, and twenty-four Bishops. There were no Ambassadors present but those of *Ferdinand* King of the *Romans*, those of the Emperor having remained sick at *Venice*, and those of *Francis I.* King of *France* having been recalled. There were besides at the opening of the Council four Generals of Orders, and several celebrated Doctors of all Nations. All that was done in this first Session was, to declare that the Council was begun, and that because the *Christmas* Holidays were near, the next Session would not be held till the 7th of *January* of the following Year.

However, the Fathers regulated among them the Manner how to proceed in that Council; and it was determined, that the Opinions should not be given by Nations, as it had been done at the Councils of *Constance* and *Basil*, which had caused a great deal of Disorder, but that every one in particular should have a free Suffrage or Vote; and that the Decisions should be made at the Plurality of the Votes, according to the Method used in the last Council of *Lateran*, under *Leo X*; that the Points in Controversy should be examined and resolved by Prelates distributed into several particular Congregations, which should be proposed afterwards in a general Assembly to be either corrected, or confirm'd; to be solemnly published in the Session, which should be celebrated after those Congregations. For the Title which was to be put at the Head of the Decrees, two Things were resolved, contrary to the Intentions of the *Lutherans*, (against whom this Council was assembled) and they were conceived in these Terms: *The holy œcumenical Council legitimately assembled under the Conduct of the Holy Ghost; the apostolical Legates presiding.* The Protestants wanted a Council absolutely independent of the Pope; and to shew that so regular a Body as a General Council ought to have the Members perfectly united to his Chief, who is (say the *Roman Catholics*) that of the universal Church; they added these Words, *the apostolical Legates presiding.* The Protestants were of Opinion, that the Laicks should have their Suffrages in the Council, and for that Reason the Fathers would not add these Words, *the Council representing the*

the universal Church; which are found but in the Councils of *Basil* and *Constance*: For then the *Protestants* could, and perhaps would have objected, that as the Laicks were Members of the Church, they ought, likewise, to be Members of the Council, which represents that Church. Which Reasoning the *Roman Catholics* consider as a Sophism; which, they say, can be easily destroyed by saying that the Council represents the Church, as teaching and defining by its Pastors, to whom the others are united by their perfect Submission to what is defin'd by those Pastors.

Therefore the second Session was held, with the usual Ceremonies, the next Day after the Feast of the *Epiphany*. The officiating Bishop read the Decree, prescribing a very Christian and edifying Form of Living for those who assisted at the Council.

In the third Session, celebrated the 4th of February, and composed of six Cardinals, six Archbishops, thirty Bishops, and several Abbots; they read only the Symbol of *Constantinople*, and, to wait the Arrival of the Bishops who were upon the Road, the 8th of April was fix'd for the 4th; where assisted nine Archbishops, and forty-one Bishops. And as, during that long Interval, they had examin'd in the Congregations held twice a Week, what concern'd the true Word of God, which is the Rule, and the only Principle of the Faith, they establish'd, according to the antient Councils, the Number of the canonical Books, both of the Old and New Testament, and the Traditions, brought by a continual Succession from the Apostles to those Times; and which the Catholic Church (said they) has carefully preserved, either for the Faith, or Manners. It was declar'd, that the *vulgate Version* should be believ'd authentic, and the Sense of its Words taken as understood by the Church, which in the Disputes which can be had on that Subject, is the only legitimate Judge of the true Sense of the Scripture. This Definition was against *Luther*, who wanted no Tradition, nor some of those Books which the Council had declar'd canonical, which he rejected because they condemn'd his Doctrine; nor other Judge of the Scripture but the Scripture itself, or rather himself, who pretended, that the Sense he gave to the Scripture, should always be consider'd as its true Sense.

Afterwards, as the Council wanted to follow the Order of the Confession of *Augsbourg*, which was carefully examined, they defined in the fifth Session, held the 17th of June, what was to be believed with Regard to the original Sin. Upon which, the Council declares, among other Things, that by the Grace of Jesus Christ conferred on us in the Baptism, that Sin is remitted to us, but that the Concupiscence remains, which is not a real Sin, though that Name is often given to it, which is no otherwise convenient to it, than because it is the Effect of the Sin, and inclines us to it. This condemns *Luther's* Opinion, who maintain'd, that the original Sin had not been blotted out in the Baptism, but only that it was no longer imputed to us; because he will have that Sin to be no other but the Concupiscence. After which, the Council adds, that in that Decree which related to the original Sin, they do not pretend to include the blessed and immaculate Virgin Mary, Mother of God; and that they will have the Constitutions of *Sixtus IV.* religiously observ'd.

The sixth Session, which was fix'd for the 19th of July, was deferred to the 13th of January of the Year following, because of the Troubles which begun, at that Time, in Germany; which was held accordingly, and in which was publish'd the famous Decree of the *Justification*, which the Fathers had been more than six Months examining, and which contain'd sixteen Chapters relating to that important Subject.

In the seventh Session, celebrated the 3d of March, 1547; was publish'd the Decree of the Sacraments in general, containing thirteen Canons. There were also fourteen Canons publish'd on the Baptism, and three on the Confirmation.

In the eighth Session, held the 11th of the same Month, was made the Decree of the Translation of the Council to *Bologna*, which Translation prov'd very

favourable to the *Lutheranism*, and hinder'd its entire Ruin, as we shall see plainly by the Sequel.

The Pope's Legates, *Monti*, and *Marcellus Cervinus*, who presided for him in the Council, had been more than eight Months endeavouring to procure this Translation, for some Reasons which they thought very strong, and which, in Fact, made a great Impression on several of those who composed that Assembly. For, 1. As soon as they saw the War declar'd between the Emperor and the *Lutheran* Princes, and that these having took the Field first, had already render'd themselves Masters of the Fortrefs of the *Chusa*, which is the Key of the Vallies, thro' which one can enter on that Side into the *Tirol*, and hence descend easily as far as *Trent*; they thought they could be no longer secure in that Place, and that it was no ways for the Dignity of the Council to remain thus exposed to the Discretion of the *Lutherans*, who could surprize the Fathers unawares, and invest them, when least expected, in a City very little fortified, and where there were no Forces capable to resist them. These Considerations, join'd to a panick Fear had already persuaded several of them to seek their own Safety in a Retreat from *Trent*; therefore the Legates, fearing, that if the Council was not transferr'd to some other Place, it would soon break of itself, which would be losing the Fruit of what had been done till then, and of so much Pains taken from so long a Time, to find Means to assemble that Council, as it had been done; made them still the more urgent on that Subject.

There was another Reason for it, which was kept secret, still stronger than any other, and that was, the Pope's great Age; and the Legates were afraid, that if he was to die while the Council was assembled at *Trent*, that Assembly which would have then, without Contradiction, the supreme Authority in the Church, and be supported, besides, by the Emperor, and the other Princes, would have no Regard to that Article of the Bull of Convocation, which declares, that it does not belong to the Council to elect a new Pope, but to the Cardinals; and would elect a Pope to the Prejudice of the sacred College: Therefore they wanted to transfer the Council into some of the Territories of the Church, where they could be Masters, and not be divested of a Right they were possessed of for several Centuries past.

The Pope, however, notwithstanding all these Reasons, opposed, for some Time, that Translation, which he saw would disoblige the Emperor. In Fact, that Prince was so surpriz'd, and altogether so irritated, when he learned from his Ambassadors what was transacting at *Trent*, and at *Rome*, to have the Council transferred somewhere else, that he could not help saying, in his Anger, that if he was to hear any more so unreasonable a Thing mentioned, he would immediately grant to the *Protestants* what they desired of him. He went even so far, in that furious Transport, as to break into Menaces beneath a great Prince. But having soon recovered his former Calmness, he said, at last, that having been advised to treat with the *Protestants* who were come to attack him with an Army of more than 100000 Men, while his own was not 20000; he would, notwithstanding, pursue that War, which he had undertaken (said he) but for the Glory of God, and the Good of Germany; but, however, that he would oppose that Translation, which would ruin absolutely all he had done till then, and what he designed to do to bring back the *Protestants* to the Catholic Church, by making them, if possible, to submit to the Decisions of the Council, which he could not do if it was transferred somewhere else.

Afterwards, his Ambassadors acted with all the Vigour imaginable, at *Trent*, and at *Rome*, to oppose that Translation, which, he said, would break all the Measures concerted for the Reduction of the *Lutherans*. They refuted, without much Pain, all the Reasons alledged for the Translation of the Council, said so many Things against it, and could so well understand that the Emperor would never suffer it, that

tho' the Pope, who, in the Opinion of a great many, desired as much that Translation as his Legates, had not only consented to it, but had even commanded to publish it, in Case the greatest Part of the *Council* had consented to it, to avoid a greater Evil; and the Sticklers for it did not dare to proceed any farther, especially when they saw that the Emperor, after he had dissipated that great Army of 100000 Confederates, had given Room to hope, more than ever, that the *Protestants* should be obliged at last to submit to the *Council*.

Thus the Legates, seeing no Hope of succeeding in that Affair of the Translation, which, however, they always desired, took, at last, the Resolution, in the Month of *December*, to have the *Council* concluded as soon as possible, by the quick Decision of the other Points which remained to be explained. This was certainly the best Party which could be taken on that Occasion; because, as it was not necessary that *Councils* should last too long, there had been thereby avoided those long Interruptions of that *Council*, and those great Revolutions which happened in the Affairs, and which hindered, at last, the Re-union of the *Lutherans*, as the Emperor, then victorious, could have done it. But by Misfortune it happened, a few Days afterwards, an Accident, which ruin'd entirely that fine Project formed by the Legates, and gave them a very specious Pretence to make their Project of the Translation of the *Council* succeed.

This Accident was, that towards the latter End of *February* of the Year following, the City of *Trent* began to be afflicted with a dangerous Malady, which was thought the Spotted Fever, with some Appearance that it would soon turn into a Plague. It even happened, that the General of the Order of the *Cordeliers*, or Grey Fryars, died of that Malady, and was soon followed by a Bishop, carried off in a very short Time, as he had been; and by some of the Retinue of the Prelates, who were so alarmed at it, that several of them were ready to leave the *Council*. Then the Legates, taking Advantage of so favourable an Occasion, brought again on the Tapis the Affair of the Translation of the *Council*, which they judg'd absolutely necessary for the Good of the Church; and without waiting for new Orders from the Pope, they proposed the Affair the 9th of *March*, in full Assembly; where, after they had spoke of the Danger the Fathers were exposed to, on the Attestation given by the celebrated *Jerome Fracastor*, Physician to the *Council*, that twelve Bishops had already left *Trent* on that Account, and that several others were ready to follow them, they protested that they would take, by the Plurality of Voices, what Party should be judged the most proper, provided there was no mention made of dissolving the *Council*. Then Cardinal *Pacheco*, Chief of the Imperialists, maintain'd, that nothing could be concluded on that Point, without knowing first the Pleasure of the Pope, and of the Emperor; fifteen of the Fathers were of his Sentiment, but almost all the others, without Hesitation, said, with one Voice, that the extream Danger of their Lives they were in, would not permit them to wait for that Consent, if otherwise it was necessary; and all the Cardinal could obtain, was, that they should defer making the Decree for two Days longer.

The next Day they met again, to deliberate on the same Affair; and the following, which was the 11th of the Month, was celebrated the *eighth Session*; where, after the Cardinal *Monti* had remonstrated that the Suspension of the *Council*, which had been proposed by some, was nothing else, in Fact, but a Dissolution of it, which could not subsist, but by its being transferr'd to a commodious Place, as was the City of *Bologna*. The Cardinal *Pacheco*, and the *Spaniards*, employ'd all their Rhetorick to oppose it, but in vain; for they were answer'd, that an indispensable Necessity, which has no Law, and the imminent Danger they were in, obliged the *Council* to transfer themselves somewhere else, lest it should be dissolved, by the pretended Suspension proposed. And tho' the

Cardinal and the *Spaniards* protested that they were determin'd to not leave *Trent*, where, by themselves, they would compose a legitimate *Council*, the others proceeded farther, and of fifty-six Prelates who were then in the *Council*, thirty-eight having voted for the Translation to *Bologna*, against fourteen who rejected it, and four others, who appear'd neither for, nor against it; a Decree of that Translation was made, in which it was inserted, that the ninth Session, which was the next, should be celebrated at the Day fix'd, i. e. the 21st of *April*. In Consequence of that Decree, the Day following, which was the 12th of *March*, two Years after the *Council* had began at *Trent*, the two Legates, with all the Prelates of their Party, departed for *Bologna*; but the Imperialists, with the Cardinal *Pacheco*, remain'd at *Trent*.

This had certainly caused a Schism in the *Roman Catholick Church*, if the Emperor had not prevented it by his Prudence and Piety, which hinder'd him, on that Occasion, from being revenged, to the Prejudice of the Church, of the Injuries he thought he had receiv'd. It is true, that he order'd his Bishops to stay at *Trent*, according to their former Resolution; but he forbade them celebrating any Session, because he was not willing that a greater Scandal should be made in the Church, where there had been seen two *Councils* for one, and Altar against Altar: But, however, he did all he could near the Pope, to oblige him to restore Things to their former State. In Fact, he no sooner heard the News, than he dispatch'd a Courier to his Ambassador at *Rome*, with Orders to make, from him, the most pressing Instances near the Pope, to engage him to send his Legates back again to *Trent*; but as he saw that he receiv'd no other Answer but very polite Excuses, founded, most of them, on the pretended Malady raging at *Trent*; and that he had been well inform'd that that Malady was not attended with any dangerous Consequences; he thought they gain'd him: And as nothing is more sensible to a great and victorious Prince, as he was then, than the least Shadow of Scorn; he enter'd, all of a sudden, in such Wrath, that he banish'd the Pope's *Nuncio* from his Presence; telling him, that *Rome* had been proposed to assemble a *Council*, *Non mancherà Concilio che sodisfaccia à tutti erimedi al tutto. Il Pape è un vecchio ostinato è vuol ruinar la Chiesa; i. e.* that he knew how to go to *Rome* when he pleased, to have a *Council* celebrated there; that he would order every Thing; and that the Pope was an obdurate old Man, who wanted to ruin the Church.

The Death of the Pope terminated those Disputes between him and the Emperor, and nothing was done while they lasted, either at *Trent* or *Bologna*, than to prolong the Time for making a new Decree; and the *Council* was even suspended for some Time: So that the Translation produced nothing else but that the *Council*, which could have then acted so well for the Good of the Church, was interrupted for very near four Years, and afterwards re-assembled at *Trent* by Pope *Julius III*, with the Consent of the Emperor, and of the King of *France*, *Henry II*. The Bull of its Restauration was publish'd in the Month of *November*, of the Year 1549; the Cardinal *Crescentius*, with an Archbishop and a Bishop, were chosen Presidents; and the 1st Day of *May* of the Year following, in the first Session under *Julius III*, and the 11th of the *Council*, was read the Decree of that Restauration at *Trent*.

In the *twelfth Session*, held the 1st of *September*, as a greater Number of Prelates were expected, nothing else was done, but the Intimation of the *twelfth Session* for the 12th of *October*; in which, according to the Order of the Decrees already made on the Sacraments, before the Translation of the *Council*, would be publish'd that made on the Eucharist.

During the whole Month of *September* were carefully disputed the Points in Controversy on the Eucharist; after which, the 12th of *October* was celebrated the *thirteenth Session*; where, besides the Presidents and the Cardinal of *Trent*, were present the

three

three ecclesiastick Electors of the Empire, six other Archbishops, and thirty-six Bishops; and there was read the Decree of the *Eucharist*, whereby it is defin'd against the Sacramentarians, (as they were call'd) *the real Presence of Jesus Christ in the holy Sacrament of the Altar. Against the Lutherans, the Transubstantiation, the Adoration of the Host, the Presence of Jesus Christ out of the Use of the Sacrament, which may be kept to be carried either in Procession, or to the Sick; and the necessary Preparation to receive it worthily by a sacramental Confession of the mortal Sins.* They would define nothing, either of the Communion under both Kinds for the Laicks, or of the Sacrifice of the Mass, till the fifteenth Session, which was appointed for the 25th of *January* of the Year following; that the *Protestant* Theologians, who were much concern'd in these two Points, and to whom a very ample *Safe-conduct* was given, might have Time to come to the *Council*: In the Interim, the fourteenth Session was held, the 25th of *November*; in which was expos'd the *Catholic* Doctrine relating to the Sacraments of *Penitence*, and of the *extreme Unction*; that of *Penitence* in nine Chapters, which contain *the Necessity and Institution of that Sacrament; its Difference from the Baptism; its three Parts, viz. Contrition in general, under which Attrition, joined to the Sacrament, is comprized: Afterwards, the Confession of Sins; lastly, the Satisfaction.* It was also declared, *who is the Minister of that Sacrament; which must be the Form of the Absolution; and the Power of the Church to reserve certain Cases.* And as to what they wanted to be believed of the *extreme Unction*, it was propos'd in three Articles, which contain *its Institution, its Effects, and its Minister.* All this against the Doctrine of *Luther*.

Moreover, as the Emperor insisted always that the *Protestants* should send their Theologians to the *Council* to propose their Reasons in Defence of their new Doctrine, there came Ambassadors from the most considerable among the *Lutheran* Princes, and from some imperial Cities. Those of the Elector of *Brandenbourg* arriv'd first, at the Beginning of *October*; they were follow'd towards the latter End of the same Month by those of the Duke of *Wittemberg*, and these by the Historian *Sleidan*, (the same who has wrote the History I have now before me, in Favour of his Friends the *Lutherans*, with much Politeness, and very little Sincerity) who came to the *Council* in the Month of *November* with some Ministers from the Cities of *Strasbourg, Eßlingen, Ravensbourg, Biberack, Rutlingen, and Lindau*; but the Ambassadors of the Duke *Mauricius*, new Elector of *Saxony*, who were chiefly expected, arriv'd but the 7th of *January* of the Year following: For those of the Elector of *Brandenbourg*, as they were sent by their Master, on no other Account than to shew his Obedience to the *Council*, they did not wait for the others, and they were heard the 12th of *October*, in the thirteenth Session, where *Flavius*, famous *Juriconsultus*, Chief of that Embassy, speaking of Pope *Julius*, call'd him *lays Palavicini, l. 12. c. 9.) sovereign Pontiff of the holy and universal Roman Church*; and concluded his Harangue with these Words, *The holy Council must not doubt that the most illustrious Prince Elector will religiously and sincerely observe all that this holy Assembly will be pleas'd to order, as a Christian Prince, and an obedient Son of the Catholic Church is oblig'd to do. What the holy Council may know by this authentick Order, we have from our Master.* Thus spoke, by his Ambassador, *Joachim II*, Elector of *Brandenbourg*; acting in this either sincerely, as may be presumed of a Prince, who had a great deal of Honour and Probity; or, as *Sleidan* writes it, only to engage the Pope to approve the Election, which the Canons of *Alberrstadt*, and of *Magdebourg*, had made of Prince *Fredrick* his Son, for their Bishop. For to pretend, with the scandalous *Ira. Paolo*, that it was but a pure Civility of the Elector, (which the *Council*, who was glad to take Advantage of the least Things, took for an authentick Act) it would be a Sort of *Paolian* *Malice*, without Wit; since one would be expos'd to

be convinced of Falshood by the clear and formal Terms of the Harangue of the Ambassador.

As for the other Ambassadors, especially those of the Duke *Maurice*, they behav'd in a quite different Manner; for it seem'd as if they had enter'd the *Council* but to insult it, and to declare that they would never submit to it. However, they were treated with a great deal of Honour, and receiv'd all Sorts of Favours even by an express Command from the Pope, who said, that *a good Father ought to suffer something from his Children, to bring them gently to their Duty.* Therefore they were heard in the general Congregation of the 24th of *January*, Eve of the Day appointed for the fifteenth Session. There they made their Proposals, several of which shew'd clearly, that they did not want a *Council*, contrary to what they had promised in the last Diet of *Augsbourg*; for they insisted on Things which they knew perfectly well had been always refused to them, and which would never be granted, since they were contrary (say the *Catholic* Authors) to what had been observ'd in all the *æcumenical Councils*; for they wanted not only that it should be declar'd first, according to the Decrees of *Bazile* and *Constance*, that the *Council* was above the Pope, which was renewing a Quarrel which was not in Question then; but pretended, likewise, that *the Pope being their Party, against whom they had several Things to say, he could not be Judge in that Cause; that all that had been done in the Council till then, should be disregarded, and that the Points of Doctrine which had been defined, should be examined a-new; that the Bishops should be absolved of their Oath to the Pope; that they might give freely their Advice; and that the Protestant Theologians who would come to the Council, should have the Right of Suffrage, as well as the Fathers.*

As these Conditions were supposed to be manifestly contrary to the Practice and Custom of the Church, and against the Nature of *Councils*; they were given to understand, that they were contrary to what themselves had propos'd when they had ask'd at *Augsbourg* the Continuation of the *Council* at *Trent*, which presuppos'd that it was then a legitimate and universal *Council*, in the State it had been in before. Afterwards they were granted two Things they had ask'd, *viz. a Safe-conduct* for their Theologians, still more ample than the first; and that the Publication of the Decrees already made for the next Session, should be deferr'd; that their Doctors, who had not yet the *Safe-conduct* they had ask'd, should have Time to come to propose what they had to say against those Articles. Therefore, in the fifteenth Session, celebrated the Day following, there were but those two new Decrees made of the *Safe-conduct* given to the *Protestants*, and of the Prorogation granted to them to the 19th of *March*, which was again since extended to the 1st of *May*, when the Decrees relating to the *Sacrifice of the Mass*, and to the Sacraments of *Order*, and *Marriage*, were made. In that Interval, the *Catholic* Doctors worked in several Congregations to the Explanation of the last, to form of it the Decrees which were to be propos'd to the *Council* in the sixteenth Session.

This Conduct displeas'd the *Protestant* Ambassadors, who pretended that that Examen should be deferred till the Arrival of their Theologians. They complain'd of it to *Charles V*, who wish'd that they should be satisfied particularly on this Point, which he judg'd reasonable. He wrote about it to his Bishops, and order'd them to endeavour to have those Congregations suspended, and, in Case of Refusal, to protest against them for him. The Pope, on his Side, believing that it was against the Dignity of the *Council* to remain so long in Inaction, commanded, that after having interrupted, for some Days only, those Congregations in which nothing was done but examining the Points of Doctrine, without deciding any Thing, they should proceed as they had began; and as, besides the Presidents, and the Cardinal *Madrucius*, there were then at *Trent* sixty-two Bishops, most of them

them Subjects of the Emperor, and 42 *Theologians*, among whom were reckoned, 25 *Spaniards*, and 12 *Flemish*, there had perhaps happened a great Division in the *Council*, if that Contestation had not been all on a sudden terminated, by the Revolt of the new Elector of *Saxony* against the Emperor *Charles V.* his Benefactor; which obliged the Pope to suspend once more the *Council*, which could not be re-establish'd nor in his Time, nor in that of the two following Popes his Successors.

But 10 Years afterwards, at the pressing Instances of the Emperor and of the Kings of *France* and *Spain*, it was convoked anew by the Pope *Pius IV.* who after he had invited all the Princes of *Europe* both Catholics and Protestants, to the *Council*, and named for his Legates the Cardinal *Hercules Gonzague*, Bishop of *Mantua*, a Prince of an extraordinary Piety, profound Doctrine, and consummate Prudence, and *Jerom Seripand*, Bishop of *Salerna*, commendable for his eminent Virtues and marvellous Eloquence; the *Council* was assembled in 1561, but as there were then but nine Bishops arrived at *Trent*, the first Session, under *Pius IV.* and the 17th ever since the Beginning of the *Council*, was celebrated but the 18th of *January* of the Year following 1562. In this Session nothing else was done but the reading and approving the Decree by which it was declared that the Prorogation of the *Council* was taken off, that that Day it was opened, and that henceforward they would treat in it of what the *Council* should judge proper and necessary to appease the Differences in Points of Religion, to correct the Abuses and Depravation of Manners, and to restore Peace to the Church.

The 26th of *February*, was held the eighteenth Session, and the second under Pope *Pius IV.* where was read the Decree, in which it was order'd that there should be made by Deputies appointed for that Purpose, the *Index*, or Catalogue of the prohibited Books, which however was not published during the *Council*, for Fear of irritating the Protestants, who would have seen themselves condemned in their Works. They are also invited anew in that Decree to come to the *Council*, and they are offered a safe Conduct, as ample and as secure as could have been wished, not only for the *Germans*, but likewise for all the other Nations.

Before the Celebration of the nineteenth Session, fix'd at the 14th of *March*; there happened a very great Embarrass, out of which the Fathers had a great deal of Pains to extricate themselves. The *Spanish* Ambassadors and all the *Spanish* Bishops, according to the Order they had received from King *Philip*, who was then angry with the Pope because he had give Audience to the Ambassadors of the King and Queen of *Navarre*, asked that it should be declared formally in that Session, that this *Council* was but a Continuation of that begun under Pope *Paul III.* and continued under Pope *Julius III.* On the contrary the Ambassadors of the Emperor protested, that if such Declaration was made, they would leave immediately the *Council*, because they could never suffer that such an Affront should be made to the Emperor their Master, that that Term *Continuation*, offensive to the Protestants, should be put in the Bull. During this Dispute, the Fathers received Letters from the Lord *de Lansac* Chief of the Embassy which the King of *France*, *Charles IX.* was sending to the *Council*, in which he desired them to defer the Session till his Arrival. This gave Time to find Means to terminate that troublesome Contestation. But however to do nothing contrary to the Honour and Dignity of the *Council*, the Session was not deferred; for it was held the Day appointed, but it was only declared in it, that for some just Causes nothing should be decided of what was to be defined but in the next Session, which was fixed for the 9th of *June*.

But all this long Delay proved to be to very little Purpose; for the Lord *de Lansac*, and his two Colleagues, the President *Ferrier*, and the *Sieur de Pibrac*, who arrived in *May*, rendered the Embarrass still greater: For they not only asked, like the Imperialists, that it should not be declared that that *Council* was but

a Continuation of the preceding one; but would likewise, that it should be positively declared that it was a new *Council* quite different from that celebrated under the two other Popes; for otherwise neither the Protestants of *Germany*, nor those of *France* would ever acknowledge it; which would be an Obstacle to Peace, which the *Council* pretended to restore to the Church. To this the Legates answered, that the holy *Council* having been assembled by the Consent of all the Christian Princes, according to the Pope's Bull, which said only, that all Suspension having been taken off, it should be opened such a Day, they had no Power to change any thing, much less to make a new Indiction. To which the Embassadors of *France*, after they had conferred about it, with those of the Emperor, acquiesced at last, for Fear that if they had contested any longer with the *Spaniards*, who desired the contrary of what they asked, they should never agree with the Legates, and thereby hinder the Celebration of the *Council*.

And because they had asked likewise, that the *Council* should defer deciding any Point of Faith, till the Protestants, who were to be heard, had proposed their Reasons, and, the Bishops of *France* were arrived; in the Decree made in the twentieth Session, held the 4th of *June*, the Decision which was to be made, was postponed to the 16th of *July*; and moreover, because the Embassadors of the Emperor, those of the Duke of *Bavaria*, those of *Hungary* and *Bohemia*, and those of the King of *France*, insisted that the Communion under both Kinds should be permitted, which could much contribute towards bringing back the Protestants, that Affair was seriously examined during six Weeks in the several Congregations which were held on that Subject.

They all easily agreed that the Use of the Cope was not necessary to Salvation; and that *Jesus Christ* had not at all ordered it to those who do not consecrate; that both Kinds were necessary for the Sacrifice, but not for the Sacrament, and that the Church, for some just Causes, could have forbidden the Cope to the Laicks, it being certain that *Jesus Christ* is entire under one Kind, as well as under both; which had been already defined in the *Council of Constance* against the *Hussites*; but they could not agree on the other Point, which was that chiefly in Controversy, viz. if in the present State of *Christendom*, it was not expedient that the Church, which had, in former Ages, permitted to all the Faithful, without Distinction, to communicate under both Kinds, and which had since forbid it to the Laicks, for good Reasons, should permit it anew, if not to all, at least to those People, who asked so earnestly for it. The *Spaniards*, whose Advice was followed by almost all the Bishops and Doctors, maintained strongly, that the Cope ought by no Means to be granted, because the Reasons for which the Laicks had been deprived of it, subsisted still; that if the Protestants asked for it, it was only to have Room, after it had been granted to them, to accuse the Church of having erred in forbidding it; and to say that finding that she had failed in that, she had corrected herself; that that Point once obtained, they would not return sooner to the Church, but on the contrary, grow more insolent, and insist that she should change all her other Customs, and even all the Points of Doctrine, they had the Impudence to condemn: and lastly that it belonged to her, and to her only to judge what it was apropos to permit or forbid, and that it behoved all Christians to submit themselves to her Decisions.

The others, on the contrary, said, that the Cope ought to be permitted, not to Protestants only, but likewise to all the Catholics of the septentrional Countries, who wished for it; that the Church, as a good Mother, should condescend in that to the Infirmary of some of her Children, that it should not be said that the Peace has been hindered because we have used a too great Severity towards our Brethren in refusing to them a Thing which was good in itself, which so many Princes ask for, and which had been heretofore granted, even after it had been forbidden, and that there was nothing to fear in that, provided it should not be granted but on the same Conditions, which had been required then, and that it should be confessed, that

that it was not a Thing of divine Right, and that Jesus Christ being entire under a single Kind, the Use of the Cope was not necessary to Salvation, or to all Christians.

After all these Disputes, was published in the twenty-first Session, of the 16th of July, the Decree in which it is declared, *that the Laicks and Clercks, who do not consecrate, are not obliged of divine Right to communicate under both Kinds, and that it is of Faith, that one Kind alone, suffices to Salvation: That in the Dispensation of the Sacraments, the Church had always the Power, saving the Integrity of their Essence, to establish or change what she pleased, according as she judges it more proper for the Respect due to Sacraments, and for the Utility of those who receive them, with Regard to the Diversity of Times, Places, and Conjunctures: That therefore having approved the Use of communicating under one single Kind, established in Process of Time, in several Places, and having made a Law of it, it is not licit for any body to make any Alteration in it, without the Authority of the same Church.* Further, *that Jesus Christ being entire under one Kind, those who receive him under one Kind are not deprived of any Grace necessary to Salvation.* Lastly, *that Children who had not yet the Use of their Reason, are not obliged of any Necessity to the sacramental Communion, tho' it has been heretofore administred to them in several Places.* And as to the Leave asked for some People, to communicate under both Kinds on certain Conditions, the Council declares, *that they postponed to another Time, and to the first Opportunity which shall offer, to pronounce on that Subject after it has been carefully examined; though the Council could never accomplish that Promise; for as the Pope and the Bishops wished that it should be ended soon, the Legates persuaded the Imperialists, who insisted strenuously on that Point, that it was their Interest that the Council, where the Majority was not favourable to them in that, should refer the Decision of that Affair to the Pope, with whom they could treat with some Hope of Success.*

Therefore, without insisting any longer on that Matter, they examined that of the Sacrifice of the Mass; which Examen lasted three Weeks; at the End whereof, in the twenty-second Session celebrated the 17th of September, was read the Decree where these nine Articles are defined, *that Jesus Christ, Priest, established from all Eternity according to the Order of Melchisedech, instituted the unbloody Sacrifice of the Eucharist, at his last Supper, where he offered to God the Father his Body, and his Blood, under the Kinds of the Bread and Wine; that that Sacrifice which represents every Day, that of the Cross, is propitiatory for the Living and the Dead; that it is offered to God alone, sometimes in Honour and Memory of the Saints; that there is nothing in the Canon of the Mass, but what is pure, and smells of Piety; that the Ceremonies with which it is celebrated, are very holy; that the Masses where the Priest alone communicates sacramentally, are, notwithstanding common, because celebrated by a publick Minister of the Church, not only for himself, but likewise for all the Faithful, who are Members of Christ's Body; that the Mixture of Water and Wine made in the Chalice, is ordered by the Church to represent the Water and Blood, which flowed from the sacred Side of Jesus Christ; that it is not expedient that the Mass should be recited in the vulgar Tongue, but that the Pastors, and those who have Care of Souls, must explain, or cause to be explained by others, in the middle of the Celebration of the Mass, something of what is read in it; and some of the Mysteries of that most holy Sacrifice, especially on Sundays and holy Days.* Lastly, after the Decrees for the Reformation of Manners and the Discipline were made according to Custom, the Session was terminated by the Indiction of the twenty-third Session for the 12th of November: But they were obliged afterwards to postpone it further to the 12th of July of the Year following, because of two Contestations which happened at that Time, and which were these.

The Emperor Ferdinand, and Charles IX. King of France, seeing plainly that the Protestants of Germany and France, would always take for Pretence of their

Refusal to submit themselves to the Council, the pretended Tyranny of the Pope, which hinder'd it from being a free Council; and the Corruption of the Court of Rome, which, they said, was very visible, and for which they wanted the Pope judg'd, and not to be Judge, thought it was absolutely necessary that the Council should procure a thorough Reformation, to take off that Pretence, that they could, at last, determine themselves to acknowledge the Council, and submit to its Decrees. In that Persuasion, the Emperor who was come as far as *Inspruck*, saying, that on that Account, he would go, not only to *Trent*, but even as far as *Rome*, caused to be presented to the Council, a long List of the chief Articles of the Reformation, and was preparing some others, among which there were some that were a little contrary to the pontifical Authority. The Cardinal of *Lorain*, who was expected, arriving at that Time, with a large Retinue of Bishops, Abbots, and French Theologians, to assist at the Council, exhorted, first, the Fathers, in full Assembly, to procure so necessary a Reformation; and some time afterwards, presented by the King of France's Order, thirty-four Articles, on which it was ask'd, that the Abuses which had crept into the Church should be reform'd. After which he went to *Inspruck*, to confer with the Emperor about the Means to make an Enterprize so holy and so necessary succeed.

On the other side, the Pope, who was not willing to suffer that his Authority should be attacked, maintained, *That it belonged to him alone, to reform what was amiss in the Court of Rome: That there was no Reason to complain that he had not done it, since he had published lately several Constitutions, by which he had reformed all that could be found amiss in all the Tribunals of Rome, in all the Offices of the Chancery, of the Apostolical Chamber, of the Datar, of the Rota, and of the pontifical Palace; and in the Distribution of Favours, Privileges, and Indulgences; and lastly, that he would always shew the same Zeal in all that could be reasonably expected from him.*

While they were employ'd on that Subject, there happen'd another Dispute much more dangerous, in consequence of an Enterprize, unwarrantable, and unheard, ever since so many Centuries till then, by which the Count of *Luna*, Embassador of the King of *Spain*, dared to dispute of Equality with the Embassadors of the King of *France*; who declared publicly, that they would leave the Council with all the *French*, and protested of Nullity of all that could be done in it, if that Count refused to take beneath them, in the Rank of the Embassadors, the Place which his Predecessors, in the same Employment, had always occupied in the other Councils; but they desisted at last from their former Resolution, in consenting that he should have a particular Place a-part from the Rank of the Ambassadors; a Conduct which was much blamed in *France*, and elsewhere. It is true, that the Pope, the Year following, after the Conclusion of the Council, pronounced in Favour of the King of *France*, in declaring solemnly, that his Embassadors ought to precede those of the King of *Spain*, who then disputed not only the Equality, as they had done in the Council, but even the Precedency. But however the *Spaniards* would never acquiesce to so just a Judgment, till *Louis XIV.* forced them to it, in obliging them not only to dispute no more the first Place to his Embassadors, but to confess likewise, as they have done by an authentick Act, that it was due to them, every where where they should meet together.

But as that Contestation was appeased during the Council, till it should be provided for otherwise; the Emperor and the King of *France* having at last listen'd to the Reasons of the Pope, spoke no more of Reformation, on which they had so strongly insisted, and the Cardinal of *Lorain* had appeased by his Dexterity several Differences happening between the Bishops on other Things, which could have retarded the Conclusion of the Council so much desired.

The twenty-third Session was celebrated the 15th of July,

July, in which, besides the Legates *Hofius* and *Simonetta*, presided the Cardinals *Moronea* and *Navagari*, after the Death of the Cardinals of *Mantua* and *Seripand*, who died at *Trent* three or four Months before. There was defined what was to be believed of the Sacrament of the Order in four Articles, where it was declared, *That Jesus Christ has given to his Apostles, and their Successors in the sacerdotal Office, the Power to consecrate, and to offer the Sacrifice of the Eucharist, and to remit and retain Sin; that there have been in all Times in the Church seven Orders, some greater than the others; that it being undubitable by the Scripture, and by apostolical Tradition, that the Order conferred gives Grace, it cannot be questioned afterwards that it is an Order; that as that Sacrament, as well as Baptism and Confirmation, imprints a Character which can never be blotted out, it cannot be maintained without an Error, that those who have been once legitimately ordained, can become Laicks again, if they cease exercising the Ministry of the Word of God. That all Christians are not Priests, but those only who are ordain'd by Bishops, as well as by the true Successors of the Apostles, who are Superiors to Priests who have not, as they have, the Power of conferring the Confirmation and the Order; that the Consent of the People, or of the secular Power, is not necessary for Ordination; and that on the contrary, those who presume to exercise the ecclesiastical Ministeries, by the single Will of Seculars, without having received the Grace of Ordination, are Thieves and Robbers.*

In the twenty-fourth Session, which was postponed from September the 16th, to November the 11th, the Cardinal of *Lorain* being returned from *Rome*, where he went to confer with the Pope, on the Means to terminate the Council as soon as possible, the Catholick Doctrine was expos'd with regard to the Sacrament of Matrimony, in twelve Articles. The Council says, *Anathema to those who will say, that it is not a true Sacrament which confers Grace; that Christians are allowed to have several Wives, and that such Thing is not forbidden by any divine Law; that the Church cannot establish certain Impediments to Matrimony; that it can be broken for Cause of Heresy; of unhappy Cohabitation, or affected Absence of one of the Parties; that Matrimony contracted and not consummated, is not broken by the solemn Profession of Religion made by one of the Parties; that the Knot of the Sacrament can be broken for the Sin of Adultery; that there can be no Separation a Toro for a Time determined or not determined; that the Ecclesiasticks in holy Orders, or Regulars, who have made a solemn Vow of Chastity, can contract Matrimony under Pretence that they have not the Gift of Chastity, which they can ask of God, who does not permit we should be tempted above our Strength; that the State of Matrimony is preferable to that of Virginity or of Celibacy; that the Prohibition of the Solemnity of Nuptials, at certain Times of the Year is a tyrannical Superstition; and lastly, that the Causes which concern Matrimony, do not belong to the ecclesiastical Judges.* To which the Council added a Decree, by which to hinder clandestine Marriages, it declares null, the Contracts of those who will presume to contract Matrimony, otherwise than in the Presence of their Curate and of two or three Witnesses, or of some other Priests, with Leave of the Curate or of the Ordinary.

Lastly, in the twenty-fifth and last Session of the Council, the ninth under *Pius IV.* and which was celebrated the 3d and 4th of December, there were three Decrees published. In the first of them it is declared, *that there is a Purgatory, and that the Souls of those detained in it, are eased by the Suffrages of the Faithful, and particularly by the holy Sacrifice of the Altar, and the Bishops are ordered to take care that Preachers should not move, on that Subject, frivolous and vain Questions, which cannot serve to the Edification of the People; nor advance uncertain Things with regard to the Souls in Purgatory, and have even some Appearance of Falshood.* In the second, *is expos'd the Doctrine relating to the Intercession and Invocation of Saints; and the Honour due to their Relicks, and to the holy Images, which have*

all a Relation to the holy Personages they represent, banishing all Sorts of Superstition, and all the Abuses which could be made of that Worship. And in the third it is declar'd, *that the Use of Indulgencies is approved by the Authority of the holy Councils; that according to antient Custom they are to be distributed but seldom, and especially without making of them those criminal Abuses which have occasioned those Blasphemies vomited by the Hereticks against them.*

This is all that was done, with Regard to the Dogma's, in that famous Council of *Trent*, which having been assembled three Times, in the Space of eight Years, to reduce the Protestants, condemn'd the Doctrine of *Luther*, without being capable to re-unite the Lutherans to the Church. And if I have enlarged more on this, than on any other, it is because it has been celebrated very near our Times, and has made much Noise in the Christian World. I have related concisely, and without the least Partiality, all that was transacted in it, the most essential, and which I have extracted from the most authentick Acts and Manuscripts, without having Recourse to those partial, malicious, and scandalous Authors, as *Fra. Paolo*, &c. which consulted nothing else, in the History they have made of this Council, but private Piques, Party Quarrels, Animosity, and Revenge.

The other Councils, which are either national, or provincial, are the following ones, viz.

The COUNCIL of *Antioch*, assembled in the Year of Christ, 265; of Pope *Dennis*, 5; of the Emperor *Gallian*, 11; against *Paul* of *Samosate*, who denied, with *Sabellius*, the Distinction of the divine Persons; and pretended, with *Artemon*, that the Word was descended into *Christ*; that he had, alone, operated by him, and was return'd afterwards to his Father. He likewise establish'd in our blessed Lord two distinct Persons, the Son of God, the Word, and *Christ*, who, he maintain'd, had not been before *Mary*, but had receiv'd the Name of Son of God, as a Reward for his good Works. From these impious Principles he concluded, that in the Eucharist the Blood of the Lord was corruptible. These Propositions, after they had been examin'd by the Fathers of the Council, were abhorred and condemned. They likewise made a Confession of Faith, in order to have it signed by *Paul*, that in Case he had refused to do it, he might have been proceeded against according to the canonical Forms. The Fear of being deposed, rather than the Sentiments of Truth, made him abjure his Heresy, and subscribe to the Epistle of the Fathers of the Council, among whom were, *Gregory Thaumaturgus*, *Firmilian*, Bishop of *Cæsarea* in *Cappadocia*, *Hymeneus* of *Jerusalem*, *Heleninus* of *Tharse*, and *Theocletus* of *Cæsarea* in *Palestina*; all celebrated for their Doctrine and Piety.

Another of *Antioch*, assembled in the Year of Christ, 271; of Pope *Dennis*, 11; of the Emperor *Aurelian*, 1; against the same *Paul* of *Samosate*, who continuing to preach and teach his pernicious Doctrine, was condemn'd and depos'd by the Fathers of this Council; who wrote, likewise, a synodal Epistle, with this remarkable Title, *To Dennis*, (who was the Pope) *to Maximus*, (who was the Bishop of *Alexandria*) and to all our Collegues, Bishops, Priests, and Deacons, dispersed throughout the whole Earth; and to the universal Church which is under the Heavens, *Helenus*, *Hymeneus*, *Theophilus*, *Theocletus*, &c.

The COUNCIL of *Tyre*, convoked by *Constantine the Great*, (to judge of the Accusations form'd against *St. Athanasius*) in the Year of Christ, 335; of his Empire, 30. This Council was compos'd of sixty Bishops, who, notwithstanding the Innocence of *St. Athanasius*, prov'd, by undeniable Evidences and Testimonies, to the Confusion of his Accusers, condemn'd and depos'd him.

The fourth national COUNCIL, is that of *Milan*, in *Italy*, assembled in the Year 358, under the Emperor *Constantius*, for the Justification of *St. Athanasius*. This Council was compos'd of above 300 Bishops of the Latin Church.

The

The Council of *Rimini*, assembled in the Year 359, under the same Emperor *Constantius*, where *Urfacius*, *Valens*, *Oruncius*, *Germinius*, *Caius*, and *Demophilus*, were depos'd, for having refused to pronounce Anathema against the Heresy of *Arius*.

While the Bishops of the western Church were assembled at *Rimini*, those of the East were likewise assembled at *Seleucia*, upon the same Subject.

The Provincial Council of *Carthage*, in *Africa*, assembled by *Aurelius*, Bishop of that See, in the Year of *Christ*, 401; of Pope *Anastasius*, 4; of the Emperors *Arcadius* and *Honorius*, 7; against the *Donatists*. In this Council there were 32 Canons made to regulate the ecclesiastical Discipline; by one of them the Bishops gave Leave to read, in the Church, the History of the Martyrs, on the Days of their Feasts. *Aurelius* presided at that Council.

The Year following, *Aurelius* convoked another Council at *Milevium*, which was assembled the 27th of *August*, 402; and where the Decrees of the preceding Councils were confirm'd.

Another Council of *Carthage*, assembled again by *Aurelius* against the *Donatists*, in the Year 404; of Pope *Innocent*, 3; of the Emperors *Honorius* and *Arcadius*, 10. In this Council it was resolv'd, to send a Deputation to the Emperors, to let them know, that the *African* Bishops had employ'd all Sorts of Means to oblige the *Donatists* to return to the Church; that they had offer'd them a Conference of Bishops; and that instead of accepting so advantageous a Condition, they had exercised a great many Barbarities, not only against the Laicks, but likewise against the Clerks and the Bishops, and had usurp'd several orthodox Churches: That having done all that is prescrib'd by the ecclesiastical Laws to bring them to Reason, they were forced, at last, to ask their Imperial Majesties Protection for the *Catholicks*, that the Church, which had begat them in her Bosom, and nourish'd them with the Solidity of the Faith, might be defended by their Care; and to hinder presumptuous Men from prevailing by Violence on the People, to corrupt them, while Piety flourish'd; that they ask'd neither a new Thing, since the Emperors, their Predecessors, had stopt the Fury of the *Circumcellions* by their Ordinances; nor contrary to the ecclesiastical Order, since they read in the Acts of the Apostles that *St. Paul* had made Use of *Roman* Soldiers to defend his Life. *Theutius* and *Evodius* were chosen for that Embassy, who arriv'd the Year following near the Emperor *Honorius*, who granted them all they ask'd. The Rigour of the several Ordinances he publish'd against the *Donatists*, prov'd to be of a greater Efficacy to bring them back to the Church, than all the Councils which had been assembled against them; which shews that the properest Means to exterminate Heresy, is, not to force the Hereticks in their Belief; in which the Authority of Princes, and the Torments, render them more obstinate, and which serve only to heighten their Credit among the People: But that the Privation of publick Honours, and the Incapacity of enjoying the Commodities of a civil Society, make a greater Impression on those who are more sensible of a temporal Felicity, than of Religion. *St. Augustine*, who had thought before that none but spiritual Arms ought to be employed against them; found, by the good Effects produced by the Laws abovemention'd, that he had been mistaken in that Point. He wrote, on that Subject, an excellent Letter to *Vincent*, who was a *Donatist*, wherein he shews, that 'it would be returning Evil for Evil, if the *Catholicks* were to abstain from retaining, by Fear, those from whom they had receiv'd so many Outrages, and who cannot be hinder'd from continuing their Violences but by the Menaces of Princes: That Fear ought to be join'd with Instruction; because, if the Hereticks were only frighted, without being instructed, it would be a Tynny, and not a salutary Conduct for their Salvation, that all those who forgive are not true Friends,

'nor all those that wound, real Enemies; and that it is better to love with Severity, than to deceive by Compassion; that God does not only teach us with Benignity, but fright us, likewise, with Menaces,' &c.

At the Return of the Deputies, *Aurelius* assembled another Synod at *Carthage*, i. e. in the Year 406; where was concluded what remain'd to be done for the Re-union of the *Donatists*.

There was another Council, assembled at *Carthage*, against the *Donatists*, the 13th of *October*, 408.

The Council of *Cirtbe*, held in 411, against the *Donatists*; but nothing remains of that Council, but the Epistle of *St. Augustine*, written in the Name of the Fathers of that Assembly, in which he refutes the Calumnies of the *Donatists*.

Another Council of *Carthage*, assembled by *Aurelius*, in the Year 412, against *Celestius*, Disciple of *Pelagius*; where he was excommunicated, and oblig'd to quit *Carthage*.

Another Council of *Carthage*, held in 416, against *Pelagius* and his Disciple *Celestius*; where they were both anathematiz'd.

The second Council of *Milevium*, in *Numidia*, assembled the same Year 416, against the two same Heresiarchs. There is a great Dispute about the Canons of this Council, some pretending that they were eight in Number; but I am of Opinion, that there was none made, and that those attributed to it are of the third Council of *Carthage*, against the *Pelagians*: Because *St. Augustine*, in his Epistle to *Valentine*, and in that to *Paulin*, speaking of these two Councils of *Carthage*, and of *Milevium*, says nothing of those Canons.

The second Council of *Carthage*, against the *Pelagians*, held in the Year 417, where both *Pelagius* and his Disciple *Celestius* were condemn'd.

The first Council of *Rome*, convok'd by Pope *Celestinus*, in the Year of *Christ* 430, against *Nestorius*; where his Heresy was condemn'd, and anathematiz'd.

The first Council of *Alexandria*, assembled by *Cyril*, Patriarch of that See, in the same Year 430, against the same *Nestorius*; where the twelve following Anathema's were fulminated against his Errors.

I. If any Body denies the *Emanuel*, (i. e. *Jesus Christ*) who has dwelt among us, to be truly God, and does not confess that the blessed Virgin is the Mother of God, since she had begat in his Flesh the incarnate Word of God; let him be *Anathema*.

II. If any Body does not confess that the Word of God the Father is united to the Flesh according to the Hypostasis, (i. e. substantially, and not morally) and with its own Flesh makes but one with *Christ*, who is God and Man together; let him be *Anathema*.

III. If any Body, after the Union, distinguishes the Hypostasis, (i. e. the divine Nature, and the human Nature) and joins them together only of a Conjunction of Dignity, Authority, or of Power, and not of a natural Union, (i. e. a true Union) and from which results something which is one; let him be *Anathema*.

IV. If any Body attributes to two Persons what is said in the Gospel, and the apostolical Writings of *Christ*, or what he says of himself, attributing the one to Man, consider'd as separated from the Word of God; and the other to the Word alone, who is born of God, as belonging to the Divinity; let him be *Anathema*.

V. If any Body presumes to say, that *Christ* is not true God, but only a Man who carries God, he that is the natural and only Son of God; let him be *Anathema*.

VI. If any Body says, that the Word of God the Father is the God and the Lord of *Christ*, and does not confess that after the Incarnation of the Word, according to the sacred Scriptures, the same Person is one only God, and Man together; let him be *Anathema*.

VII. If any Body says that *Christ* is a Man only, and that the Word of God operates in him, as in a pure

pure Man, and that the Glory of the only Son is arrived to him as to a Man distinguish'd from him; let him be *Anathema*.

VIII. If any Body presumes to say that the Man, taken by the Word; must be adored and glorified with him, and called God, as one who exists in the other; that is to say, with Regard only of the Habitation of the Word, in *Jesus Christ*, as in one Person distinct from him; and if he does not adore the *Emanuel*, with one single Adoration, and does not attribute to him one single Glorification, as to the Word made Flesh; let him be *Anathema*.

IX. If any Body says, that our Lord *Jesus Christ* has been glorified by the Holy Ghost, as by a foreign Virtue, by which he operated, and that he has receiv'd from him the Power to expel evil Spirits, and to operate Miracles, and does not confess that it is by his proper and natural Spirit, that he has perform'd those divine Works; let him be *Anathema*.

X. The divine Scripture teaches us, that *Jesus Christ* has been the Pontiff, and the Apostle of our Confession, *i. e.* of our Faith, and that he has offer'd himself for us in an Odor of Suavity, to his Father; therefore, if any Body says that our Pontiff, and our Apostle, is not the same Word of God, after he has made himself Flesh, and Man semblable to us; but that he is the Man born of the Woman, as if one was different from the other; or that *Jesus Christ* has offer'd his Sacrifice for himself, and not for us only, (for he who had committed no Sin, wanted no Oblation;) let him be *Anathema*.

XI. If any Body denies that the vivifying Flesh of the Lord is the proper Flesh of the Word, and attributes it to another Person join'd to the Word only, according to the Dignity, and who has but the divine Habitation; and if he does not confess, that *that* Flesh is truly vivifying, because it has been made of the proper Flesh of the Word, which vivifies all Things; let him be *Anathema*.

XII. If any Body denies that the Word of God has suffer'd, has been crucified, and died, in the Flesh, and that he has been the first of the Dead; let him be *Anathema*.

The *Anathema's* were sent to *Nestorius*, in an Epistle which contain'd his Condemnation, besides another Epistle addressed to the People of *Constantinople*, to inform them of the Condemnation of their Bishop, if he refused to retract his impious Doctrine, which he had defended with Obstinacy. But *Nestorius* took so little Notice of what had been done against him in this Council of *Alexandria*, that he continu'd to preach his Errors.

The Council of *Constantinople* assembled against the Pretension of the Patriarch of *Alexandria*, in the Year 439. In this Council, *Theodoret* maintain'd so well the Rights of the Church of *Antioch*, that *Dioscorus*, who managed the Affairs of the Church of *Alexandria*, incapable of resisting the Strength of his Reasoning, conceiv'd ever after an implacable Hatred against him.

The Council of *Rbiez*, in the *Gaules*, assembled towards the latter End of *November* of the Year 439, where *Hilary* of *Arles* presided, and where the Ordination of *Armentarius*, Bishop of *Ambrun*, (which was the Occasion of assembling this Council) was declared null, because he had been ordained by two Bishops only, without the Authority of the Metropolitan. In the third Canon of this Council it is order'd, that a Bishop returning from the Heresy, or Schism, shall not recover his See.

The first Council of *Orange*, assembled in the Year 441; of Pope *Leo*, 2; of the Emperor *Theodosius*, 34; of *Valentinian*, 17; to regulate the ecclesiastical Discipline; and where *Hilary*, Successor of St. *Honoratus*, of *Arles*, presided. In this Council were made thirty Canons.

The second Council of *Rome*, assembled by Pope *Leo*, against the *Manicheans*, in the Year 443; of his Pontificate, 4; of the Emperor *Theodosius*, 36; of

Valentinian, 19; where their Abominations were juridically and solemnly condemn'd.

The second Council of *Arles*, in *Provence*, assembled in the Year 445, by *Hilary*, Bishop of that See; where he caused a Canon to be made, whereby he had the Power given him of assembling a national Council.

A Council in *Spain*, against the *Priscillianists*, assembled in the Year 447; of Pope *Leo*, 8; of *Theodosius*, 40; of *Valentinian*, 23. What was done the most considerable in this Council, was, the Addition to the Symbol of *Constantinople* of the Word *Son*, to the Article of the Procession of the Holy Ghost, in these Terms; *I believe in the Holy Ghost, who proceeds from the Father, and from the Son*. Some Authors have imagin'd, that this had been done in the Council of *Constantinople*; but it is certain, that they are mistaken: Tho' it be very true, that the antient Greeks, the two *Gregories*, *Basil*, *Epiphanius*, *Chrysostome*, and particularly *Cyril*, in several Places of their Works, teach, that the Holy Ghost proceeds from the Father and from the Son. The Father of the Synod I mention, took Occasion of adding the Word *Son*, from Pope *Leo's* Words, which they found in his Answer to *Tiburius*, Bishop of *Asturias*. The *Wifigoths*, who were *Catholicks*, receiv'd the Symbol in this Manner; the *Jews* who were converted to the Church made Profession of it, and it was receiv'd in the fourth, eighth, eleventh, twelfth, and thirteenth Councils of *Toledo*. It passed, likewise, into *France*, as we learn it from the Synod of *Arles*, held under *Charlemagne*; however, it was not receiv'd in the *Roman Church*, but two Centuries after the others had receiv'd it. Some *Greeks* maintain, that this Addition was made at the second Council of *Nice*, and, at present, one of the principal Complaints against the *Roman Church*, is, that without the Authority of a Council, the Word *Son* has been inserted in the Symbol. *Photius*, Patriarch of *Constantinople*, accused Pope *Nicholas I.* of having done it, and excommunicated him for that Subject, according to the Decision of the Council of *Ephesus*: But *Andrew* of *Collosses*, who disputed, in the Council of *Florence*, against the *Greeks*, says expressly, that *Photius* made no mention of that Addition in the Council. Cardinal *Baronius* refers it to *Benedict VII.* Anno 1012; who, at the Instances of the Emperor *Henry II.* caused to be sung in the Church of *Rome* the Symbol of *Constantinople* after the Gospel, as it was sung in the West. For in his Time, there was no Symbol sung, because the Purity of the Faith having been always preserved, there wanted no publick Profession of it, as in other Places where several Heresies had corrupted it.

The Council of *Constantinople*, assembled by *Flavian*, Bishop of that See, in the Year 448, to judge of the Differences that happened between *Florentius*, Metropolitan of *Sardes* in *Lydia*, and his two Suffragans, and where *Eutyches* was accus'd, for the first Time, of Error, by *Eusebius* of *Dorylea*, his Friend, and where he was excommunicated.

A second Council of *Constantinople*, assembled by the Emperor *Theodosius's* Order, at the Instances of the *Eutychians*, in the Year 449; of Pope *Leo*, 10; of *Theodosius*, 42; of *Valentinian*, 25; for the Revision of the Condemnation of *Eutyches*, in the preceding Council, assembled by *Flavian*. This Council was composed of thirty-two Bishops, and *Theodosius*, of *Cæsarea* in *Cappadocia*, presided in it. The Patriarch *Florentius*, by the Emperor's Orders, was present, and permitted *Eutyches* to plead his Cause by Procuration, refusing the same Favour to *Eusebius* of *Dorylea*, who was his Accuser. The Bishops complained of that Injustice, but could not obtain a Redress from the Prince, who had been prejudiced against *Eusebius* and *Flavian*: Therefore the Fathers were forced to permit that *Constantine*, *Elenus*, and *Constantinus*, Monks of *Eutyches*, should enter the Synod to defend his Cause. Being entered, *Macedonius*, Tribune, and Notary of the Emperor, taking the Book of the Gospel, said to the Fathers, that he had positive Orders from *Theodosius*,

dofius, to make the Bishops swear, if the Acts of the two Parties, which were to be read, were true. *Basil* of *Seleucia* answer'd, that till then it had never been heard that the Oaths had been administer'd to Bishops, and oppos'd so vigorously that which was desir'd from them, that *Macedonius* would not force them to it. Afterwards, the Request of *Eutyches*, address'd to *Theodosius*, was read; in which he expos'd, that the Acts of the Synod, which had condemn'd him, were falsified; and desired his Majesty to order that the Bishops who had been his Judges, the Notaries of *Flavian*, the Clerks who had cited him, and *Anastasius*, Deacon of the Bishop *Basil*, should come forth, to declare what they knew to have been inserted in the Registers. The Synod ordered that *Asterius*, *Aetius*, *Nomus*, *Asclepiades*, and *Procopius*, Notaries of *Flavian*, who had collected the Acts of the preceding Synod, should enter to be examined on that Subject. *Constantine*, one of the Advocates of *Eutyches*, maintained that while the Sentence of Condemnation was reading, he had appealed to the Councils of the Bishops of *Rome*, of *Alexandria*, of *Jerusalem*, and of *Theffalonica*, but that the Appeal had not been registered. The Patrice *Florentius* said, that the Synod was separated, when *Eutyches* whispered to him, that he appealed to those mentioned by *Constantine*, and that he had informed *Flavian* of it. *Basil* of *Seleucia* affirmed, that while the Synod was assembled, having propos'd to him to confess two distinct and inseparable Natures in *Jesus Christ*, he had answer'd, that if the Bishop of *Rome*, and of *Alexandria*, would confess it, he would likewise confess it with them; but that he had not spoke thus, in form of Appeal. To be more certain of the Truth, the Abbots who were present at his Condemnation were ask'd, if they had heard him appeal, and they all with one Voice denied it.

In the second Session was read another Request of *Eutyches* address'd likewise to *Theodosius*, in which he desires him to command the *Silentiarius*, to declare in the Synod what he had heard *Flavian* say before the Sentence was pronounced. That Man who wanted to oblige *Chrysaphius* to the Prejudice of his own Bishop, swore that he had heard him say, before the Session where *Eutyches* was judged, that he was condemn'd; and that he was carrying the Sentence ready to the Synod, to have it signed. The Priest *Asterius* supported that Falshood, and declared that the Acts of the preceding Synod had been changed. However, *Theodosius* ask'd *Flavian* his Profession of Faith, and he wrote one, wherein he anathematized so clearly the Doctrine of *Nestorius*, that he left no Room for the Suspicion which *Eutyches* wanted to give to the Empror of the Purity of his Doctrine. At last, notwithstanding what the Advocates and Partisans of the Heresiarch could say, the Bishops pronounced, that the Acts of the Synod in Question, were true. *Eutyches* minded as little that Sentence as he had done the first, and ask'd the Emperor, that *Dioscorus* of *Alexandria* should be appointed to revise his Affair. That Prelate who was infected with the Errors of *Eutyches*, wrote to the Emperor, that it was necessary to assemble a Council. *Chrysaphius* had gain'd him, and as he had a great Influence over his Master, he easily perswaded him to convoke the Assembly ask'd by the Bishop of *Alexandria*, without considering that it was giving a Reputation to the new Heresy, and a greater Strength, by the Remedy employ'd to smother it.

This pretended Council granted by *Theodosius* to the *Eutychians*, is sometimes call'd the *Second of Ephesus*, sometimes *Conciliabulum*, and more properly a *factious Assembly*. The *Gallican Church* calls it *Le Brigandage D'Ephese*; and as it was attended with a great Number of notorious, not to say infamous Incidents, the Reader will give me Leave to entertain him with some of them.

This pretended Council was convok'd, by *Theodosius* for the 1st of *August*, of the Year 449, in the City of *Ephesus*. The Emperor wrote a Letter to *Dioscorus* of *Alexandria*, by which he order'd him to chuse ten *Metropolitans* of his Province, and ten Bishops the

most considerable for their Piety and Doctrine, to examine with the other Prelates, who should assemble by his Orders, the controverted Questions, and establish the Orthodox Doctrine. Towards the latter End speaking of *Theodoret*, he orders that he shall not be admitted in the Synod but with the Consent of all the Bishops, and that if any Dispute arises on that Subject, they may meet without him. *Eutyches* feared the Doctrine of that Prelate, therefore had given him the Exclusion, as he had done sometimes before to *Ibas* of *Edeffa*, under Pretence that he was a *Nestorian*.

The Council began the 10th of *August*, and was compos'd of 128 Bishops, with the Deputies of some who could not come. *Dioscorus* presid'd by the Emperor's Orders: The first Session was opened by reading the Letters of the Emperor to *Dioscorus*; and afterwards the Legates of Pope *Leo*, presented the Letters which he had wrote to the Council, and to *Flavian*, which *Dioscorus* would not suffer to be read. Those the Emperor had wrote to several Persons for the Celebration of this unfortunate Council having been read, some Bishops propos'd that they should treat of the Faith: But *Dioscorus* oppos'd it, alledging the Decree of the Emperor, who commanded that they should treat of the Differences happen'd between *Flavian* and *Eutyches*. The Notaries who collected the Acts of the Synod were guilty of Falshood in this Place; for they wrote that the Bishops had acquiesc'd to what *Dioscorus* had said, crying that they ought not to treat of the Faith, or make any Innovations, which in the Council of *Chalcedon* was prov'd a Falshood.

The Count *Elpidius*, sent by the Emperor to assist at the Council, order'd, with the Bishops Consent, that *Eutyches* should be admitted to defend his own Cause, and declare publicly his Faith. He presented a Confession of it in Writing, which was worthy, not of the Malice and Deceit of an old Heresiarch as he was, but of the Piety and Sincerity of the most Orthodox Bishops: For, in it, he submitted himself in all Things to the Decisions of the Councils of *Nice*, and of the first of *Ephesus*; and anathematized particularly the Errors of *Manes*, of *Valentine*, of *Apollinaris*, and of *Nestorius*. Afterwards he accus'd *Eusebius* of *Dorylea* of having calumniated him as his Enemy; *Flavian* of having condemn'd him without the least Form of Judgment, and notwithstanding his Appeal. *Flavian*, after this Confession of Faith had been read, request'd that *Eusebius*, *Eutyches*'s Accuser, should be heard, which was refus'd by *Dioscorus*, who was both the President and the Tyrant of the Council; and when, afterwards, *Eusebius* complain'd of this Injustice at the Council of *Chalcedon*, *Dioscorus* threw that Fault on Count *Elpidius*, who had order'd him to act in that Manner; as this threw that Injustice on *Theodosius*'s Will, who had order'd him, said he, that he should suffer neither *Flavian*, nor *Eusebius*, to propose any Thing in the Council, for they were to be there, not as Judges, but to be judg'd.

Dioscorus having thus reject'd *Eusebius*, ask'd that the Acts of the Synod of *Constantinople* against *Eutyches* should be read. *Julian* and *Hilary*, the Pope's Legates, protest'd that they would not suffer that Reading, till after that of the Epistle of Pope *Leo* to the Bishop *Flavian*. Then *Eutyches* said, that those Legates were oblig'd to him because they had lodg'd in *Flavian*'s House, and eat with him. *Dioscorus* received that Recusation, and caus'd the Acts he had propos'd to be read. In the Course of the Reading, when they came to the Writings of St. *Cyril*, *Eustatius* of *Beryte* interrupting it, said, that according to the Sentiment of that Father, it ought not to be said that there were two Natures in *Jesus Christ* after the Union, but only one, and that such was likewise the Opinion of *Athanasius*. Upon which *Eutyches* Partisans cried the same Thing; and when towards the End, they read, that *Eusebius* had press'd that Heresiarch, to confess two Natures in *Christ*, after the Incarnation, they cried still louder; 'Let *Eusebius* be burnt alive, and be divided in two as he has divided *Jesus Christ*.' After these

these furious Exclamations, *Dioscorus* asked the *Council*, if it was a tolerable Proposition to say, that there were two Natures in *Jesus Christ*, after the Union? All the Bishops who approved his Sentiment, through a pusillanimous and servile Complaisance, cried again, 'Let him who speaks thus, be *Anathema*.' The other Prelates attempted to oppose those Furies; but *Dioscorus* having introduced in the *Council* a great Number of Soldiers, threatening Deposition, Imprisonment, and Exile, to all those who should refuse to approve the Impiety which had been pronounced; *Domnus* of *Antioch*, *Juvenalis* of *Jerusalem*, *Stephen* of *Ephesus*, *Thalassius* of *Cesarea*, and the others by their Example, were so intimidated, that, forgetting their Duty, they subscribed to a Doctrine which they abhorred in their Heart.

Flavian opposed that abominable Decision, alledging that he had not been heard, but that Opposition was rejected, and served only to accelerate his Deposition; as well as of *Eusebius* of *Dorylea*. Then *Flavian* said aloud, *I appeal from thee*, according to the Version of the old *Latin* Interpreter; or *I refuse thee*, according to the *Greek*. *Onesiphorus* of *Iconium*, embraced the Knees of *Dioscorus*, and intreated him to revoke the Sentence he had pronounced against *Flavian* who was innocent; but that furious Prelate descending from his Throne, and standing up, cried, *That if even his Tongue was to be cut, he would never speak otherwise*. And as *Onesiphorus* and the other Bishops continued to press him, he asked, Where are the Counts? Then they entered with a Band of Soldiers who brought Chains to load those who resisted the Will of *Dioscorus*; so that all being seiz'd with Fear subscribed to the Condemnation of *Flavian* and of *Eusebius*. *Hilary* one of the Pope's Legates fearing of being arrested Prisoner, found Means to escape from *Ephesus*, and came to *Rome*, to inform *Leo* of all that had passed in the false *Council*, against the Orthodox Faith, and against *Flavian*. *Dioscorus* not believing himself revenged enough yet of that holy Bishop, whom he had deprived of his See, caused him to be beaten so outrageously by *Barsumas*, and, if we believe *Evagrius* l. 2. c. 2. himself kicked him so much in the Stomach that he died in three Days afterwards. *Dioscorus* deposed likewise, *Ibas* of *Edessa*, and *Theodoret* of *Cyr*.

The third *Council* of *Rome*, assembled by Pope *Leo*, in the Year 449, where all that had been done in the *Conciliabulum* of *Ephesus*, was condemned.

The third *Council* of *Constantinople*, assembled by *Anatolius* Patriarch of that See, in the Year 450, the first of the Emperor *Marcian*: For the Reunion of the Eastern Church, and the Re-establishment of the Bishops fallen in the Heresy. In this Synod *Nestorius* and *Eutyches* were anathematized.

The third *Council* of *Arles*, assembled by *Ravennus*, Bishop of that See in the Year 458, to compose the Differences between the Abbot of the Island of *Lerins*, and the neighbouring Bishops.

The fourth *Council* of *Constantinople*, assembled by *Gennadius*, Patriarch of that See, in the Year 450, of Pope *Leo*, 20. of the Emperor *Leo* and of *Majorian*, 3. This Synod was composed of 73 Bishops of the neighbouring Provinces, with *Domitianus*, and *Germinianus* the Pope's Legates. The Acts of this *Council* are lost, and we have but one Canon left, made against those, who give Money for their Ordination.

The fourth *Council* of *Rome*, assembled by Pope *Hilary* in the Year 465, for the Re-establishment of the ecclesiastical Discipline in *Spain*.

The fifth *Council* of *Rome*, convoked by Pope *Felix*, in the Year 483, the first of his Pontificate; of the Emperor *Zeno*, 10. The Resolution of this Assembly was, that a Deputation should be sent to the Emperor *Zeno*, to complain of the Injury offered to the Church, and to the Orthodox Faith, by those who had betrayed it, by adhering to *Peter*, charges that they should write to *Acacius* to reproach him of his Connivance with the Hereticks, that the Request presented against him by *John Talanda*, should be annexed to that Letter, and a

Citation before the Pope, to come to answer on the Chiefs of the Accusation contained in it, and that the Emperor *Zeno* should be requested to force him to appear.

The sixth *Council* of *Rome*, assembled by the same Pope *Felix*, in the Year 484, against the Prevarication of his Legates, or Deputies, to the Emperor *Zeno*, who, instead of following their Instructions, by insisting on the Condemnation of the Hereticks, by the Expulsion of *Mongus*, communicated with them, and suffer'd, without making the least Protestation, that the Name of *Mongus* should be read, in their Presence, in the sacred Tables. In this *Council* they were deposed of the Episcopacy, the Honour whereof they had betrayed in a Legation ordered for its Defence.

In another Session they treated the Affair of *Acacius*, Author of their Fall; and having examined his past Conduct, declared him a Heretick, and Protector of the Heresy: And some Time afterwards (as they found him incorrigible) excommunicated him.

The seventh *Council* of *Rome*, convok'd by Pope *Felix*, in the Year 487; of his Pontificate, 5; of the Emperor *Zeno*, 14; for the Reconciliation of those who had been re-baptized in *Africa*.

The eighth *Council* of *Rome*, convoked by Pope *Gelasius*, in the Year 494; this *Council* was composed of 70 Bishops, who, after they had declared which were the canonical Books received in the Church, ranked among the Apocryphal, several Writings of Authors who had lived in the preceding Centuries, either Catholics or Hereticks. Towards the End of the Acts of this Synod, is inserted the Condemnation of several Heresiarchs, and Schismatics, among whom are expressed more particularly, *Eutyches*, *Dioscorus*, *Peter* of *Alexandria*, *Peter* of *Antioch*, and *Acacius* of *Constantinople*, as excommunicated.

The ninth *Council* of *Rome*, convoked by Pope *Gelasius*, in the Year 495, for the Absolution of *Misemus*, one of the Legates of Pope *Felix*, who had been excommunicated for their Prevarication when sent to the Emperor *Zeno*, with Regard to *Acacius* of *Constantinople*. Cardinal *Baronius* has given that Absolution, which is very long, together with the Acts of this *Council*, which he had found in the Library of the Vatican.

The tenth *Council* of *Rome*, assembled by Pope *Symmachus*, in the Year 498, for the Confirmation of his Election.

The eleventh *Council* of *Rome*, assembled by the Authority of *Theodorick* King of *Italy*, in the Year 502, on the same Subject of the Election of *Symmachus*. This *Council* is called the *Synod of the Palm*, either from a Place of *Theodorick's* Palace, thus called, where the Bishops met, because the Schismatics would not assemble in the Church, or rather from a Portico of the Basilick of *St. Peter*, which did bear that Name. In this Synod *Symmachus* was absolved of all the Accusations exhibited against him, declared innocent, and acknowledged once more Bishop of *Rome*.

Symmachus, in an Action of this Synod held in the Basilick of *St. Peter*, excommunicated the Emperor *Anastasius*, for favouring the Heresy, and persecuting the Orthodox of *Constantinople*.

The first *Council* of *Agde*, in *Languedoc*, assembled in the Year 505, for the Re-establishment of the ecclesiastical Discipline.

The first *Council* of *Orleans*, in *France*, assembled by the Authority of King *Clovis*, in the Year 511, of Pope *Symmachus*, 13. of the Emperor *Anastasius*, 21; of *Clovis*, 30. This *Council* was composed of 32 Bishops, and 31 Canons were made in it to regulate the ecclesiastical Discipline.

The first Canon orders, that if any body guilty of Homicide, Adultery, or Theft, takes Sanctuary in a Church, or its Porch, it should not be permitted to take him from thence, till after it has been promised by Oath, upon the Gospel, that the Criminal shall not be put to Death, nor mutilated in his Members, nor otherwise

otherwise punished. That if any body violates that Oath, he must be separated from the Communion of the Church.

The *twenty-fourth Canon* orders, the Fast of *Lent* before *Easter*.

The *twenty-seventh Canon* orders, the Celebration of the *Rogations*, i. e. of the Litanies before the Ascension of our Lord, by a Fast of three Days.

The *third Council of Arles in Provence*, assembled in the Year 524. There were but four Canons made in this Council: 1. For the Age of the Ordination of Deacons, and Priests, of those at 25 Years, and of these at 30. 2, 3. For the Irregularity of the new Converts, and of Penitents, Bigamies, &c. they forbid being promoted to the Orders; 4. For the Reception of Clerks excommunicated in one Diocese, that they should not be received in another, under the Penalty of Excommunication.

The *second Council of Orange*, assembled in 592, under the Consulate of *Decius*. The Fathers of this Council made 25 Canons, where all the Doctrine controverted between the Disciples of *St. Augustin*, and those of *Faustus*, concerning *Predestination*, *Grace*, and *Free-Will*, was clearly explained. Pope *Boniface* approved this Council by a Letter he wrote to *Cesarius of Arles*.

The *Council of Carpentras*, held, according to *Father Simon*, in the Year 527, where it was ordered, that a Bishop that has a Revenue sufficient for his Maintenance, should raise nothing on the Parishes of his Diocese.

The *second Council of Toledo*, in *Spain*, celebrated in the Year 531, for the Reformation of the ecclesiastical Discipline.

The *fourth Council of Constantinople*, celebrated in the Year 536, where *Anthimius*, Patriarch of *Constantinople*, who had been deposed, and *Mennas* elected in his Place, were condemned, together with *Severus of Antioch*, *Peter of Apamea*, and *Zoara*.

The *second Council of Orleans*, assembled in the Year 536.

The *fifth Council of Constantinople*, convoked by *Mennas*, Patriarch of that See, in the Year 538, where *Origen* was condemned after his Death.

The *third Council of Orleans*, celebrated in the Year 540. This Council, where *Lupus of Lyons* presided, was composed of 25 Bishops, who made 33 Canons, for the Regulation of the divine Office, of the Lives of the Clerks, of the Marriages, and of the Penitence of the Laicks.

The *fourth Council of Orleans*, celebrated in the Year 541. It was composed of 38 Bishops and of 12 Priests, who were Proxies for the absent Bishops. They made 38 Canons, to regulate several Things in the Discipline.

The *twelfth Council of Rome*, assembled by Pope *Vigilius*, in the Year 548, where he condemned the *three Chapters*, which made the *African Bishops* renounce his Communion.

The *third Council of Toledo*, (which was a national one) assembled by King *Recarede*, in the Year 590, at Pope *Gregory 2*; of the Emperor *Mauricius*, 8, by the second Canon of this Council, it is ordered, that the Symbol of *Constantinople*, shall be recited before the Lord's Prayer.

The *seventh Canon*, orders, the Bishops and Priests to cause the Scripture to be read while they are at Table. The Council of *Trent* has renewed this Ordinance, which is once more become obsolete.

The *Council of Rheims*, assembled in the Year 625, composed of 41 Bishops, who made several very useful Regulations for the Preservation of the ecclesiastical Discipline, whereof the following ones are the principal.

The *sixth Canon* excommunicates the Judge who has punished a Clerk without his Bishop's Leave; but it enjoins the Bishop to punish his Clerk for the Crimes he is accused.

The *tenth* orders, to expel from the Church as Murderers of the Poor, those who have stole Things given to Churches by Testament.

The *eleventh* forbids to sell Christian Slaves to the

Jews, and excommunicates those who make such Commerce, which it calls illicit, and of no Effect. It adjudges to the *Fisk*, the Slaves whom the *Jews* endeavour to force by their ill Usage to embrace Judaism, and interdict to them all publick Actions.

The *eighteenth*, forbids strictly the Clerks, to have Recourse to the Laick Judges, either for secular or ecclesiastical Affairs, till after they have obtain'd Leave of their Bishop.

The *twenty-eighth*, orders, that when a Bishop dies, another should not be put in his Place, unless he be an Inhabitant of the same Town or City; and that with the Consent and Election of the People, and of the Comprovincials. And if any Body causes himself to be elected in another Manner, it deposes and puts under Interdiction, for three Years, those who have ordain'd him.

The *sixth national Council of Toledo*, assembled in the Year 638; of Pope *Honorius*, 13; of the Emperor *Heraclius*, 29; it was compos'd of 52 Bishops, or their Deputies, who made 19 Canons, for the Establishment of the orthodox Faith, and of the ecclesiastical Discipline. But the most considerable, is that, by which it is order'd, that for the future, none shall be elected King of *Spain*, nor take Possession of that Kingdom, before he has took a particular Oath, to suffer no Body in the Kingdom but Orthodox; and that if a King violated that Oath, he should be *Anathema*, *Maranatha*, and thrown into everlasting Fire; and the Priests or Christians, Partakers of his Guilt, would be compris'd in the same Condemnation. The Bishops assembled pronounc'd that Sentence, with the Consent of the King, and of the Grandees of the Kingdom. To which were added, the other Decrees made against the *Jews* in the preceding Councils.

The *Council of Lateran*, assembled by Pope *Martin*, in the Year 649; of his Pontificate, 1; of the Emperor *Constantius*, 8; against the *Type*, which was a Formula, which, under Pretence of uniting all the Church into one and the same Faith, as well those who said that there were two Wills in *Jesus Christ*, as those who admitted but one. This Council was compos'd of 105 Bishops, who held five Sessions, the two first were employ'd in reading, what had been written relating to the *Type*.

In the *third Session*, were read the Writings of *Theodorus*, Bishop of *Pharanes*, in the Defence of the *Anothelism*; the nine Chapters or Articles of *Cyrus*, Bishop of *Alexandria*, which were all learnedly refuted by the Bishops, who observed, that the Authority of *St. Denis*, in his Epistle to *Cajus*, (in which he calls the Operation of *Jesus Christ*, *Dei virilis*) had been corrupted by him; for *St. Denis* had said an Operation, *Dei virilis*, i. e. *Theandric*; and *Pyrrhus* made him say a single Operation, changing the Word *new* into that of *single*, which was very different. After this Passage alledg'd by the Hereticks had been read, the third Session ended by the Reading of the *Ecthesis*, publish'd under the Name of the Emperor *Heraclius*, and of the Letters of *Sergius* to *Cyrus*, and of the Answer of *Cyrus* to *Sergius*, who confirm'd it.

In the *fourth Session*, held the fourteenth of the Calends of *November*, was read the Edict call'd *Type*, publish'd under the Name of the Emperor *Constantius*, which was condemn'd as impious, and full of Impostures. Afterwards were recited the Symbol of *Nice*, that of *Constantinople*, the twelve Anathema's of *St. Cyril*, publish'd in the Council of *Ephesus*, the Definition of Faith made in that of *Chalcedon*, and the Canons of the same Council.

The *fifth Session*, was employ'd in extracting from the Books of the Fathers, which were brought in the Council, the most proper Passages to confound the new Hereticks. This done, the Bishops made twenty Canons to explain the Doctrine of the Catholick Church, on the Incarnation of the Son of God; and to condemn anew, *Sergius*, *Pyrrhus*, *Paul of Constantinople*, *Cyrus of Alexandria*, and *Theodorus*; which Canons were sign'd by all the Bishops.

The *eighth Council of Toledo*; assembled in the Month of

of *December*, 653; of Pope *Martin*, 5; of the Emperor *Constantius*, 12; compos'd of 52 Bishops, besides the Deputies of those Absent, the Abbots, and several *Palatine* Counts. In this *Council* were made 17 Canons, the ninth whereof, orders strictly the Abstinence from Flesh during *Lent*.

The *tenth Canon*, wills, that immediately after the Death of a King, the Bishops should assemble with the great Men of the Kingdom to elect another, to be the Defender of the Catholick Faith; who should be modest, moderate in his Actions, in his Judgments, and in his Life; who should exact nothing from his Subjects by Violence, nor under any false Pretence. But the chief Care of the Bishops, in this *Council*, was to correct the Priests, who liv'd scandalously with Women. Therefore, they depriv'd those who should be convicted thereof, of their Rank, and of the Exercise of their Functions.

The *ninth Council of Toledo*, celebrated in the Year 655; and compos'd of 16 Bishops, who made 17 Canons, for the Consecration of the Goods and Estates of the Church, which the Bishops were forbidden to usurp.

The *tenth* of these *Canons*, orders, that the Children born of Bishops, Priests, Deacons, and Sub-Deacons, should not be Heirs of their Fathers, but remain Slaves of the Church, whereof their Fathers were Ministers.

The *tenth Council of Toledo*, celebrated in the Year 656; and compos'd of 20 Bishops, and 5 Deputies of the Absent. In this *Council*, it was order'd, that the Feast of the Annunciation of the blessed Virgin, should be celebrated eight Days before that of the Nativity of our Lord.

The *eleventh Council of Toledo*, celebrated in the Year 675; and compos'd of 19 Bishops, 2 Deacons, as Deputies of their Prelates, and 7 Abbots.

In the *fourth Canon*, of this *Council*, on the Complaints made of the Animosity which some Priests kept one against another, and so scandalous, that, not only the Sun went down every Day on their Hatred, which, the Apostle says, should not happen among *Christians*, but that whole Years pass'd without a Reconciliation; orders strictly, that *before that Reconciliation be made, none should presume to approach the Altar of the Lord, or to receive the holy Communion: But, that the Guilty should remain separated by a holy Compensation of Penance, as long as they have been at Variance.* That if one of them offers to be reconciled, he must immediately be received in the Church, reserving to the Superior, to judge if he must spend in Penance, double the Time he has pass'd in Animosity against his Brother.

The *sixth Canon*, forbids all those employ'd in the Administration of the Sacraments, to exercise any criminal Judgments which take the Life, or condemn to the Mutilation of some Members, *either by themselves, or their Order*; and condemns those who violate that Prohibition, to lose their ecclesiastical Degrees, depriving them, likewise, of the holy Communion for the Remainder of their Life.

The *eighth Canon*, orders, that *if a Minister takes something for the Administration of Baptism, &c. if the Bishop of the Place be an Accomplice, he must remain excommunicate for two Months; but if it is done without his Knowledge, he who has committed the Fault, i. e. who has took MONEY OR PRESENTS, shall remain excommunicate during three Months, if he be a Priest, if a Deacon, for four Months, &c.*

The *ninth Canon*, to suppress the Simony, which reign'd then in *Spain*, orders, that a Bishop, before he is consecrated, shall swear before the Altar, that *he has given nothing, or promised nothing, or will give nothing for the Ceremony of his Consecration; and that all those who shall be convicted of having been ordain'd for Money, be expelled and separated from the Church, as true Simoniacs, i. e. That they be condemned to a Banishment of two Years, and punish'd with Excommunication.* That if they sincerely repent, afterwards, they may be restor'd, not only to the Com-

munion, but, likewise, to their Degree.

The *twelfth Council of Toledo*, celebrated in 681; and compos'd of 35 Bishops, 3 Deputies, 4 Abbots, and several Governors of Provinces, and Grandees of the Kingdom. This *Council* made 13 Canons.

The *ninth Canon*, renews all the Decrees which had been made against the *Jews*. 1. It forbids them to renounce their Baptism, after they have receiv'd it, or to make their Children, or Servants renounce it. 2. To celebrate their Passover, to practise Circumcision, and to induce a Christian to renounce his Religion. 3. To solemnize their Sabbath, nor their other Feasts. 4. To work on *Sunday*. 5. To observe the Distinction of Flesh. 6. To marry in the Degrees prohibited by the Church, and without the Priest's Benediction. 7. To make a Jest of the Christian Religion, to defend their Sect, to give Means to those who forsake the Christian Religion, to retire to other Places, or to receive them in their Houses. 8. It forbids, likewise, the Christians, to receive any Thing which is against the Faith of *Jesus Christ*. 9. To read Books condemn'd by the Church. 10. To detain Christians for Slaves. 11. To beat, or maltreat a Christian, unless it be only by the King's Order. 12. It commands them, besides, coming from other Provinces, to present themselves to the Bishop, or to the Priest of the City, to learn from them what they are to do. 13. To assemble at the Days appointed by the Bishop.

The *fifteenth Council of Rome*, celebrated in the Year 731; by Gregory III. the second Year of his Pontificate; of the Emperor *Constantine Copronymus*, 1. This *Council* forbids the Women forsaken by those who had been promoted to sacred Orders, to marry other Men: The Clerks were forbidden, also, to wear long Hair.

The *Council of Leptines*, assembled in the Year 743; wherein two Impostors, the one call'd *Adalbert*, and the other *Clement*, one of them *French*, and the other *Scotch*, were condemn'd. The *Frenchman* falling into all Sorts of Impurities, and forsaking the publick Churches, he us'd to build Oratories in the Fields; where he seduced the People, by Impostures and false Miracles. He pretended to know Futurity, and publish'd an Epistle, which he said, had been written by *Christ* in Heaven, and had fell from thence into *Jerusalem*. The *Scotchman* rejected the sacred Canons, and the Expositions of the Fathers, and preached several Blasphemies against Predestination, and endeavoured to introduce Judaism.

The *Council of Paris*, assembled by the Emperor *Louis the Gentle*, in the Year 829; where there were made 67 Canons, to reform several Abuses which had been introduc'd in the *Gallican* Church. The fifty-fifth, fifty-sixth, and fifty-seventh, treat of the Obligation and Duties of Kings; and say, that the secular Powers are Necessaries in the Church, that what the Priest cannot do, by Instruction and Doctrine, Power may command it, through Fear of the Punishment: That those who act against the Faith, and the Discipline of the Church, be corrected by the Severity of Princes; and that the Discipline which the Conduel of the Church cannot exercise, be established upon the Head of the Provost, by the Power of the Sovereign; and that Power may oblige them to observe and respect the ecclesiastical Laws.

The *Council of Valence*, celebrated in the Year 855; of Pope *Benedict III.* 1; of the Emperor *Lotharius*, 15; of *Michael*, 14; there were present in this *Council* 14 Bishops of three Metropolis. In it the Bishops profess to follow the Doctrine of the Fathers, *St. Cyprian*, *St. Hilary*, *St. Jerom*, and *St. Augustin*, and the Tradition of the Church. In the second Chapter, they explain the Doctrine of the Presence of God, 'which, say they, necessitates no Body, so that a Man 'could not be, otherwise, than it has been foreseen, 'but only such as he should be, by his own proper 'Will; that no Body is condemn'd because God has 'foreseen it, but by his own proper Iniquity; and 'that the Bad do not perish because they could not be Good

Good, but because they would not; and that by their Vices they remain in the Mass of Damnation, by the original, or actual Sin.

In the second Chapter, they expose their Sentiments of Predestination, and confess, 'that there is a Predestination of the Impious, to eternal Death; but that in the Election of those who are saved, God's Mercy precedes the Merits and the good Works; and that in the Damnation of the Wicked, the bad Deeds and Demerits, precede God's Judgment: Lastly, that no Body is predestinated to Evil by God's Power, so that he could not be other than Bad. An Error against which they pronounce *Anathema*.'

In the fourth Chapter, they treat of the *Redemption*, and call 'a great Error, the Opinion of those, who say, that the Blood of *Christ* has been spilt for the Impious, who are dead in their Impiety, from the Beginning of the World to his Passion, and consequently are damn'd; but teach, according to the evangelical and apostolical Truth, that the Price of the Blood of *Jesus Christ*, has been given for those he spoke of, when he said; *as Moses has exalted the Serpent in the Desert, thus the Son of Man must be exalted, that whoever believe in him, may not perish, but have Life everlasting*. Towards the End, they condemn'd four Chapters or Articles, which had been receiv'd imprecidently, in the *Council of Mayence*, because of the Damages they could produce, and of the Error contrary to the Truth they contain'd, and the Conclusions compris'd in nineteen Syllogisms, which they reject by the Authority of the Holy Ghost, and

which they are not willing should come to the Ears of the Faithful.

These four Chapters, and these Syllogisms, must be those which *Hincmarus*, had caused to be made, in the *Council of Mayence*, against *Gothescack*, and shews plainly, that the *Council of Mayence*, we speak of at present, had been assembled against his Doctrine.

In the eleventh Chapter, they abolish the Custom, which had been introduc'd, to make the two contending Parties swear, and excommunicate that Person, who opposes his Oath to that of his Party, it being impossible, that the one or the other, should not be guilty of Perjury.

In the sixteenth Chapter, the Bishops are order'd to preach themselves, or to appoint Ministers, capable to do it, as well in the Villages, as in the great Towns.

In the seventeenth Chapter, mention is made of the Visitation of Parishes, and order'd, that it should be with Parcimony, and according to the canonical Instruction, that it may appear, that Bishops, either by themselves, or their Ministers, seek only after the Salvation of Souls, and no Body should have any Reason to complain of the too great Expence.

There have been several other *Councils*, either national, or provincial, besides those heretofore mentioned, and likewise in the following Centuries, which it would be too tedious to mention here, and which all tend towards the same End, *viz.* to abolish the Heresies condemn'd in the œcumenical *Councils*, of which I have given a very particular Description, or to reform the ecclesiastical Discipline.

CURRYING.

CURRYING is a Method of preparing Leather with Oil, or Tallow; which raises on the Hair, or Wool-Side, a Kind of Grain, not unlike that of *Morocco*; though there is also a Kind of *curried* Leather without Grain. *Currying* is the last Preparation, and puts the Leather in a Condition, to be us'd for Shoes, Saddles, Harness, &c. The Colours given in *Currying*, are, black, white, red, yellow, and green: The other Colours are given by the Skinners; who differ from the *Curriers* in this, that they apply their Colours on the Flesh-Side; the *Curriers* on the Hair-Side.

Our *Currier's* Shop, must be provided with long two-handed Knives, to pare the Leather with; a Steel, made somewhat in Form of a Bodkin, to turn in the Edge of the Knife; a flat Iron Instrument, to beat down the Grain; a Pummel, or Call; a Table to stretch the Leather upon; a Horse, or Leg, to pare, and pummel his Leather upon; Pumice Stones, Oil, Tallow, Colours, &c.

There are four Manners of *currying* Leather, in black, with the Grain; for the Skins are either put in Tallow on both Sides; or Oil is us'd in lieu of Tallow, on the Flesh-Side; or Tallow is us'd alone, on the Hair-Side, and nothing on the other; or Tallow is us'd on both Sides, and no Grain rais'd.

The two first, are us'd for Cows and Calves Leather; the second, is the only Way us'd for Sheep; and the two last, are us'd occasionally, for Cow and Bullock: For Calf and Sheep, they use Sumach on the Flesh-Side, which gives an Orange-Cast.

For *Neat's-Skin*, in black; the Skin coming from the Tanner, is wet several Times with a Broom, roll'd and trod under Foot to make it tractable, drain'd, and as much of the remaining Flesh as possible, taken off with the Knife; hung in the Air till half dry, then wet and trampled again and again. This done it is rubb'd over with a Pummel, having Niches in Manner of Teeth, to render it still more pliant, and sing'd with Straw to prepare it to receive the Tallow; which is applied boiling hot on both Sides. The Skin is then

sing'd a second Time; laid four Hours in a Vessel of fresh Water, trampled, and work'd a second Time with the Pummel, on each Side, and stoutly drain'd; smear'd over with its first black, made of Galls and Ferailles, boil'd in Beer-Agre, or Sour-Beer; half dried, stretch'd on a Table, and the Grain beat down with the flat Iron Instrument drawn over it from Place to Place.

It now receives its second black, made of Galls, Copperas, and Gum-arabick; when dry, and stretch'd on the Table, it is smear'd over with Beer-Agre; then folded from Corner to Corner, upon the Bench, and the Pummel drawn over it to cut the Grain, first on the Hair-Side, then on the Flesh-Side; the last with a Pummel of Cork: The Beer hanging in it, is taken out with a Hair Rubber, boiled in Hatter's Lye; and the Skin fasten'd to the Table, and clean'd with the Iron Instrument above-mentioned, and again wiped with a Piece of worsted Stocking. The Skin is now brightened, on the Hair-Side, with a Lustre made of Barberies, to prepare it to receive its last Grain. The Grain, we already observ'd, is begun by folding the Skin, the Hair-Side inwards, several Ways: To finish it, it is again folded, after its first Lustre, two Ways; first from Corner to Corner, a little slanting, then across, *i. e.* first directly, or from Eye to Eye; then from Head to Tail. The Grain thus form'd, the last Lustre, which makes the last Preparation is given; composed of Gum-arabick, Garlick, Beer, Vinegar, and *Flanders* Size, boiled together, and applied cold.

Calf-skin in Black is prepared much after the same Manner; though begun differently. After wetting, taking off as much of the Flesh remaining as possible, and drying, they pounce the Flesh with a hard, rough, Pumice-stone, which makes it more smooth and gentle; then give the Grain with the Pummel, put on the Tallow; the rest as before.

What *Sheep-skins* in Black have peculiar in their Preparations, is, that they are first stretched on a Table to get off the Bourre, or Tan, wherewith they are laden;

laden; then wet, trod under foot, and Tallow added on the Hair-side: They are again wet, again trod, stretched on the Table, and the Water squeezed out with the Pummel; then blacked, repassed under the Pummel on each Side; dyed, and all the Roughness and Inequality pared off with a flat, round, cutting Instrument: The rest as before.

Sleek-Leather, or that without any Grain, made of Cows or Bullocks Skins, differs a little in its Preparation from the former. The Skins being wet, trod, and passed under the Pummel, the Flesh is taken off; the rest as in the first Article: Observing that the Tallow be applied on both Sides as thick as possible: Being now steeped in Water, trod, frized, and blacked the first Time; the second Black is next laid on, till the Hair-side be quite smooth; lastly, after receiving the two Lustres, they are pressed between two Tables; without plating or folding them in any Manner during the whole Preparation.

The Method of preparing the Leather, called in *England, Morocco*, in *France, Marroquin*, is also, a Branch of the Art of Currying.

The *Morocco*, or *Marroquin*, is the Skin of a Goat, or some other Animal resembling it, called *Menon*, frequent in the *Levant*, dressed in Sumack, or Galls, and coloured of any Colour at Pleasure, much used in Tapistry, Book-binding, Pumps, &c. We have *Morocco* brought from the *Levant, Barbary, Spain, Flanders*, and *France*; red, black, yellow, blue, &c. we must teach the Manner of preparing it in all those Colours, beginning by *black Morocco*.

To prepare *black Morocco*, the Skins having been dried, are steeped in clear Water three Days and Nights, stretched on a wooden Horse or Leg, beaten with a large Knife for that Purpose, and steeped afresh in Water, changed daily till they be well come again. In this State they are thrown into a large Vault in the Ground, full of Water, wherein quick Lime has been slaked, where they lie 15 Days; whence however they are taken and again returned Night and Morning: They are then thrown into a fresh Vault of Lime and Water, and shifted Night and Morning as before, for 15 Days longer; then rinsed in clear Water, and the Hair taken off, on the Leg with the Knife, returned into a third Vault, and shifted as before, for about 18 Days; steeped 12 Hours in a River, taken out, rinsed, put in Pails, where they are pounded with wooden Pestles, changing the Water twice, then laid on the Horse, and the Flesh taken off, returned into Pails of new Water, taken out, and the Hair-side scraped; returned into fresh Pails, taken out, and thrown into a Pail of a particular Form, having Holes at Bottom: Here they are beaten the Space of an Hour, and fresh Water poured on from Time to Time; stretched on the Leg, and scraped on either Side; returned into Pails of fresh Water; taken out, stretched, and sewed up all around in manner of Bags, leaving out the hind Legs, which serve to make an Aperture for the Conveyance of a Mixture mentioned hereafter.

The Skins thus sewed, are put in luke-warm Water, where Dogs Excrement has been dissolved. Here are stirred with long Poles half an Hour, left at rest a dozen, taken out, rinsed in fair Water, and filled by a Tunnel with a Preparation of Water and Sumack, and kept stirring four Hours successively, taken out, and heaped on one another; after a little Time their Sides are changed; and thus they continue an Hour and an half, till drained: This done, they are loosened and filled a second Time with the same Preparation, sewed up again, and kept stirring two Hours, piled up, and drained as before. This is again repeated a third Time, with this Difference, that they are now

only stirred a quarter of an Hour; after which they are left till the next Morning, when they are taken out, drained on a Rack, unfewed, the Sumack taken out, folded in two from Head to Tail, the Hair-side outwards, laid over each other on the Leg, to perfect their draining, stretched out, and dried; then trampled under foot by two and two, stretched on a wooden Table, what Flesh and Sumack remains scraped off, and the Hair-side rubbed over with Oil, and that again with Water.

Having thus received their Oil and Water, they are wrung in the Hands, then stretched and pressed tight on the Table, with the Iron Instrument used for common Leather, the Flesh-side uppermost; then turned, and the Hair-side rubbed strongly over with a Hand-full of Rushes, to squeeze out as much of the Oil remaining within as possible. The first Course of Black is now laid on the Hair-side by means of a Lock of Hair twisted, and steeped in a kind of black Dye, prepared of four Beer, wherein Pieces of rusty Iron have been thrown. When half dry, by hanging in the Air, they are stretched on a Table, and rubbed over every Way with the Pumice, to raise the Grain, over which is passed a light Couch of Water, then sleeked, by rubbing them with Rushes prepared for the Purpose. Thus sleeked, they have a second Couch of Black, then dried, laid on the Table, rubbed over with a Pumell of Cork, to raise the Grain again; and after a light Couch of Water, sleeked over anew, and to raise the Grain a third Time, a Pumell of Wood used.

After the Hair-side has thus received all its Preparations, the Flesh-side is pared with the Knife; the Hair-side rubbed strongly over with a Woollen Cap, having first given it a Lustre with Barberries, Citron, or Orange. The whole is finished by raising the Grain lightly, for the last Time, with the Pumell of Cork, which leaves them in a Condition for Sale and Use.

They prepare the *red Morocco*, by steeping the Skins 24 Hours in a River, taking them out, stretching them on the Leg, beating them with the Knife, returning them into the Water for 24 Hours, rebeating them on the Leg, resteeeping, throwing them into a Vault, and for three Weeks, taking them out, and turning them every Morning, to dispose them to peel. Being taken out for the last Time, they are scraped with the Knife, and when the Hair is quite off, thrown into Pails of fresh Water, where they are rinsed; then the Flesh-side scraped, thrown into the Pails, and thus alternately from the Leg to the Pails, till they leave the Water quite clean: Then they are put in luke-warm Water, with the Sumack as before, and after 12 Hours rinsed in clear Water, and scraped on the Leg on both Sides, pounded in Pails, and the Water changed three Times; then wrung and stretched on the Leg, and passed after each other into Water, with Allum dissolved in it. Thus allumed, they are left to drain till the Morning, then wrung out, pulled on the Leg, and folded from Head to Tail, the Flesh inwards.

In this State they receive their first Dye, by passing them after one another into a red Liquor, prepared with Lacca, and some other Ingredients, kept secret among the *Maroquineers*. This they repeat again and again, till the Skins have got their first Colour: They are then rinsed in clear Water, stretched on the Leg, and left to drain 12 Hours; thrown into Water, into which white Galls pulverized have been passed thro' a Sieve, and stirred incessantly for a Day with long Poles, taken out, hung on a Bar a-cross the Water all Night, white against red, and red against white, and in the Morning the Water stirred up, and the Skin returned into it for 24 Hours.

CUTLERY.

CUTLERY, is the Art of making Knives, Razors, Scissars, Lancets, and all other edged Tools or Instruments.

The Art of *Cutlery*, consists of several Branches; for there are *Cutlers*, who make only Knives, and understand little, or nothing of the other Branches; others Razors, others Lancets, others Instruments of Surgery; others Tools for Joiners, Carpenters, Sculptors, &c. with this Difference, that those who can make Lancets, and other Instruments, can likewise make Razors, Knives, Scissars, Penknives, &c. whereas few of those who make Knives, or Scissars only, understand how to make a good Razor, a Lancet, or any other Instruments.

The Shop of a *Cutler*, practising any of the above-mentioned Branches of *Cutlery*, must be fitted with a Forge, Anvils, Hammers, round Whet-stones of different Sizes and Grain, some coarser some finer; a large Wheel, in the Form of a spinning one, to turn round the Stones, and the polishing Tools, a Sink, to keep the Water, with which the Whet-stones are wetted, and on which they are fixed; besides the Whet-stones, and the polishing Wheels, made of Walnut-tree an Inch thick, and of a Diametre at Pleasure. The *Cutlers* for Razors, Lancets, and other such Instruments, must have besides Hones, to set those Instruments upon.

The next Thing which a *Cutler*, in either of the Branches of *Cutlery*, is to furnish himself with, is a sufficient Quantity of Iron and Steel; and as all sorts of Iron or Steel, indifferently, are not proper for his Purposes, he must understand very well how to chuse them.

Generally speaking, the best *Iron* is that which is softest and toughest, and which, when it breaks, is of an even greyish Colour, without any of those glittering Specks, or any Flaws or Divisions, like those seen in broken Antimony. But as different Countries produce different Kinds of Iron, which have Properties very different from one another; we must take Notice here, that the *Swedish Iron*, which is a fine tough Sort, will best endure the Hammer, is softest to the File, and in all Respects the best to work upon, is the properest for *Cutlery-Wares*. The *Spanish* would be as good were it not subject to red-scar, that is, to crack betwixt hot and cold. The *English Iron*, which is coarse, hard, and brittle, ought not to be found in a *Cutler's Shop*.

Though *Steel* be but a kind of *Iron* refined, and purified by the Fire, with other Ingredients, it nevertheless is much preferable to *Iron*, in a *Cutler's Shop*, as being susceptible of the greatest Degree of Hardness, when well tempered. The best *Steel*, is that which is well condensed, and in no Part looks like *Iron*. The best Razors, Lancets, &c. should be all of *Steel*.

Note, That as the true Method of making *Steel* has been greatly concealed, and the Publick long abused by Counterfeits; I'll give the following one to my Readers, which we have from *Agricola*, and is affirmed by *Kircher* to be that practised in the Island of *Illa*; a Place famous in all Ages for the Manufacture of good *Steel*, from the Time of the *Romans* to ours. Heat a Quantity of *Iron* red hot, cut it into small Pieces, mix it with a sort of Stone that easily melts. Put this Mixture, by little and little, into a Crucible, first filled with Charcoal-dust, and heated red-hot; when melted off, three, four, or more Pieces of *Iron* are to be put into the Middle of it, there boil them, five or six Hours, with a strong Fire. The Workman is to stir the melted Matter often, that the Pieces of *Iron* may soak in the smaller Particles of the melted Matter; which Particles consume, the grosser ones of the *Iron* Pieces, and are, as it were, a Ferment to them, and make

them tender. One of the Pieces is now taken out of the Fire, and put under the great Hammer, to be drawn out into Bars and wrought; and hot as it is, plunged into cold Water. Thus tempered, it is again worked upon the Anvil; then breaking it, it is considered, whether in any Part it looks like *Iron*; or whether it be wholly condensed and turned into *Steel*.

The chief Art of *Cutlery* consists in forging, tempering, and polishing well the Work.

A *Cutler* cannot use too much Precaution, in forging his Work, not only in giving it a proper Shape, and suitable to the Instrument he designs to make, that it may both be useful, and strike agreeably to the Eye (for there are sometimes Instruments, which though very good, are so awkwardly made and ill shaped, that very few Persons are ready to buy them) but likewise that Heat necessary to render it fit for tempering: Which Heat must neither be too cold nor too hot. For if too cold the igneous Particles do not penetrate intimately enough, those of the Work, to dispose them to that closer Coadunation, which they must acquire in the tempering; and if too hot, it would red-scar, and crackle, and thereby cause a very great Deformity in the Piece of Work.

The *Tempering* of the Work (which is done to render it more compact, hard, and firm; or even more soft, or pliant, according to the respective Occasions) is to plunge it, while Red-hot, in some Liquor, prepar'd for the Purpose: Sometimes into pure Water, and in effect, Locksmiths, &c. scarce use any other; sometimes into a Composition of divers Juices, Liquors, &c. which is varied according to the Manner, and Experience of the Workman; as Vinegar, Mouse-Ear-Water, Nettles, or *Spanish* Raddish-Water, the Water oozing from broken Glasses, Soot, Salt, Oil, distill'd Wine, Sal-Armoniack, &c. A *French* Cutler, told me once, that there could be no better *Tempering* than Tallow.

To *harden*, and *temper*, *English*, *Flemish*, and *Swedish* Steel, we must give them a pretty high Heat, then suddenly quench them in our Liquor, to make them hard; but *Spanish* and *Venice* Steel, will need but a Blood-Red-Heat, before it be quenched.

After the *Instrument* has been *temper'd*, it is grind-ed upon a Grind-Stone, or Whet-Stone, as well to take off the Roughness left on it, after the forging and filing, as to form the Edge; which done, it is polished on the Polisher above-mention'd, (turn'd by the great Wheel) with Emery and Putty. And lastly, set (if it be a Razor, Lancet, &c.) on the *Hone*; and rubb'd, afterwards, on a Strap of Leather, prepar'd for that Purpose. There cannot be too great a Nicety, in setting and polishing a Lancet, for the least Roughness, even the most unperceptible, either on the Edge, or on the Surface, proves very prejudicial to the Part, when used.

The *English Cutlery*, is noted for the Goodness of their Knives, and Pen-Knives; and *France*, for the other Branches of the Art; and even some Parts of that Kingdom, excel the other, in some particular Branches; for *Paris* is famous for Razors, Lancets, and other Instruments of Surgery; *Moulins* for Scissars; *Barfuraube* and *Condè* for Knives.

The making of *Sword-Blades*, and *Foils*, is also another Branch of *Cutlery*, different from all others. *Sword-Blades*, are commonly forged, with the Help of a Mill, which works heavy Hammers for that Purpose.

We know nothing of the Origin of the Art of *Cutlery*, but by mere Conjectures: For my Part, I am of Opinion, that it begun with the Use of the Sacrifices of Animals, or Beasts; that the Knives, with which the Victims were slaughter'd, were only made, at first,

of

of Stones, and that the Invention is owing to the *Egyptians*, in which Opinion I am the more confirm'd, because of the Stone Knives us'd by the *Hebrews*, in the Circumcision. The Use of Iron having been found afterwards, Knives were made of that Metal, as well as, in Process of Time, Swords, Poniards, and other sharp Weapons, invented for the Destruction of Men

and Beasts. This Art is so far dignified, as to have invented the Instrument, with which, the greatest Titles, and Marks of Honour, are administered, viz. the Sword, which is, likewise, carried in Ceremony, before Emperors, Kings, and other Sovereigns, for a Mark of their Authority, or Power.

D A M A S K E E N I N G.

DAMASKEENING, is the Art of adorning Iron, and Steel, by making Incisions therein, and filling them up with Gold or Silver-Wire; chiefly used in enriching Sword-Blades, Guards, and Gripses, Locks of Pistols, &c.

Damaskeening, is partly Mosaick Work, partly Engraving, and partly Carving. As Mosaick Work, it consists of Pieces inlaid; as Engraving, the Metal is indented, or cut in *Creux*; and, as Carving, Gold and Silver are wrought therein in *Relievo*.

There are two Manners of *Damaskeening*; in the first, which is the most beautiful, the Artist cuts into the Metal with a Graver, and other Tools, proper for Engraving on Steel; and afterwards fills up the Incisions, or Notches, with a pretty thick Silver, or Gold-Wire. In the other, which is only Superficial, they content themselves to make Hatches, or Strokes across the Iron, &c.

For the first Manner of *Damaskeening*, it is necessary, the Gravings and Incisions, be made in the Dove-Tail Form, that the Gold or Silver-Wire, which is thrust forcibly into them, may adhere the more strongly.

The second Method is the most usual, and practis'd, by heating the Steel till it changes to a Violet, or blue Colour, hatching it over and across with a Knife; then drawing the Design, or Ornament intended, on this Hatching, with a fine Brass Point, or Bodkin. This done, a fine Gold or Silver-Wire is taken, and conducting, or chasing it according to the Figures already design'd, it must be sunk carefully into the Hatches of the Metal, with a Copper Tool.

This Art of *Damaskeening*, was much in Vogue in the two last Centuries, but is so much disregarded in ours, that we find no Artificers capable to imitate the curious Pieces of Workmanship we have left in that

Taste. *Chasing*, or *Enchasing*, is used in lieu thereof, for those Pieces, which in past Ages were *damaskeen'd*, as Guards, and Gripses of Swords, &c. and which is the Art of enriching and beautifying Gold, Silver, and other Metal Works, by some Design, or Figures represented thereon, in low *Relievo*.

Chasing, is only practis'd on hollow, thin Works; as Watches, Cane-Heads, Tweezer-Cases, or the like. It is perform'd by punching, or driving out the Metal, to form the Figures from within-side, so as to stand out prominent from the Plain, or Surface of the Metal. In order to this, they have a Number of fine Steel Blocks or Puncheons, of divers Sizes; and the Design being drawn on the Surface of the Metal, they apply the Inside upon the Heads or Tips of these Blocks, directly under the Lines or Parts of these Figures. Then with a fine Hammer, striking on the Metal sustain'd by the Block, the Metal yields, and the Block makes an Indenture, or Cavity on the Inside; correspondent to which, there is a Prominence on the Outside, which is to stand for Part of the Figure. Thus, the Workman proceeds to *chase*, and finishes all the Parts by successive Applications of the Block and Hammer, to the several Parts of the Design. And it is surprising, with what Beauty, and Exactness, by this simple Piece of Mechanism, the Artists, in this Kind, will represent Foliages, Grotesques, Animals, Histories, &c. One of the best Artists in *England*, in this Kind of Work, in the Opinion of the *Connoisseurs*, is Mr. *Gliziere*.

The Art of *Damaskeening*, (though perhaps practis'd at first, at *Damascus* in *Syria*, whence it borrows its Denomination) was brought to its greatest Perfection, by Mr. *Cursinet*, a *Frenchman*, who wrought under the Reign of *Henry IV.* King of *France*, though *Chambers* endeavours to rob him of this Honour.

D A N C I N G.

DANCING, (from the *French* *Danser*; and *Danser*, according to *Salmasius*, from the *Latin* *Densare*, to thicken, as holding it a Practice among the ancient Fullers, to leap and dance as they full their Cloaths) is an agreeable Motion of the Body, adjusted by Art, to the Measures or Tune of a Violin, or Voice.

Dancing, is distinguish'd into *high Dance*, consisting of Capers, Gambols, &c. As the *Passe pied*, the *Louvre*, the *Folies d'Espagne*, the *Rigadoon*, the *Bretagne*, the *Aleman*, or *German*, &c. And *low Dance*, which is *Terra à Terra*, or close to the Ground.

The Perfection of the Art of *Dancing*, consists chiefly, in the Goodness of the Ear of the Person who *dances*, that minding well the Measure of the Instrument, or Voice he *dances* by, he may adjust his Steps to it, otherwise, it is impossible he should ever learn to *dance* well; neither can he mind those Measures, as perfectly as he should do, if he has not a tolerable good Taste for Musick.

The chief End of the Art of *Dancing*, is, that a Person should learn to present himself in Company, with an easy and unaffected Air, and to step graceful-

ly; as for the other Advantages reaped from it, they are trifling, and in my Opinion, so much beneath the becoming Gravity of a rational Man, that I consider them as nothing at all; though every Body is not of my Opinion, for the Generality of Mankind, consider *Dancing*, as a noble Exercise, or Diversion, practis'd with Pleasure by Persons of all Ranks and Conditions; even by Princes, and Heroes.

Dancing, is not like several other Arts, for it can't be learn'd perfectly, without the assiduous Attendance of a Master, and a continual Practice. A Beginner, or Pupil, besides the Voice of his Master, singing to his Ears, one two, one two three, &c. must be led by him, by the Hand, as an Infant who learns to walk, that he may step forward, stop, *cadance*, and bow his Knees, when wanted. The Grace, or Beauty of *Dancing*, does not consist in those Extensions and Contortions of the Arms, which I have seen practis'd by some Masters here in *England*, which appeared to me, as if they were in strong Convulsions, unless, the *Dance*, being a *Comick-Dance*, requires it; but in Minuets, Rigadoons, and all other such Dances most in Use, in Balls and publick Assemblies, those Contor-

sions are frightful. The Man, in a Minuet, Rigadon, &c. must have a gentle Motion of his Hands, but only as if it was natural, and without the least Affectation; and the Woman must let fall her Hands as gently, close to her Sides, the Head modestly erected, also without Affectation; both enlivening, and cadencing their Steps, according to the Measures of the Instruments, provided they play true, which a good Dancer will soon find, by the Goodness of his Ear.

The *English* have invented a new Sort of Dances, which they call *Country-Dances*, which are so entertaining, that they are in Vogue, at present, throughout all *Europe*, each Nation having modelized them, on the different Taste they have for *Dancing*.

A *Country-Dance*, is nothing but a Couplet, or Part of a *Dance*, always repeated, first by two, by four, six, eight, ten, &c. and at last, by as many Couple, as the Number of People amounts to. I call *Couple*, the Man and the Woman that figure together. A *Couplet*, in *Country-Dances*, is a certain Quantity of Figures that fill up the Tune: The same *Country-Dance*, may have several Couplets or Parts, which are like several Verses of Songs, upon the same Tune.

Each Couplet of a *Country-Dance*, is divided by Figures, viz. 1 fig. 2 fig. 3 fig. 4 fig. 5 fig. &c. The first Figure, is always that by which one begins, and goes on till you arrive at the last, which will be the End of the Part, and is to be repeated, not only by them who have begun, but also by all the other Couples, who must follow the same Way as the first, and shall likewise continue in the same Order, till every Body be arriv'd at the same Place, from whence they begun; and then the whole Part will be entirely finished, and every Couple make their Honour as they finish. But if there be a second Part, you must instead of making your Honour, go on in the same Order, as you have done in the first, and put off making your Honour, till you come to the End of the last Part.

Country-Dances, are danced with as many Persons as you please, provided it be an even Number, I mean as many Men as Women, placed upon two Lines, the Men on one Side, and the Women on the other, of which all the Couples ought to be distinguished, viz. first Couple, second, third, fourth, fifth, sixth Couple, &c.

There are two chief Designs of *Country-Dances*, upon which all the different Figures, that may be invented, are founded. The first Design, is, that every Person, whatever Figure he makes, ends all the Repetitions to the same Side; that is to say, that the Man must not change his Place, but with another Man, and the Woman, but with another Woman. The second Design, is, when the Men end all their Repetitions in the Women's Places, and the Women in the Men's Places.

In the first Design, four Things are to be observ'd.

1. When a Couple have begun to *dance*, they must not give off till they are come down to the last Couple.
2. Every Repetition, must begin always at the first Couple, at the upper End of the Room, and end at the second Couple, then to the third Couple, to the fourth, &c. and so to come down from Couple to Couple, till you arrive to the last Couple; where then all the Repetitions of the last Couple are at an End; and that Couple dances no more, till another Couple coming down, in their Turn they move up.
3. That a Couple ought not to begin to *dance*, till they are come into the first Couple's Place.
4. That a Couple that is come to the first Couple's Place, must not begin to *dance*, till the preceding Couple have made two Repetitions before.

It must be observed, likewise, that every Time that a Couple end their Repetitions, under another Couple, the Couple that is above, must move up and take the Place of them that go down.

In the second Design, there are also four Things to be observed. 1. When a Couple begins to *dance*, from whatever Place they begin, they must not discon-

tinue, till they are arriv'd, not only to the last Couple's Place, but also, to the very Place where they have begun. 2. Every Time that a Repetition begins again, the same increases always by Couples, so that the *Dance* which before was but of two, comes to be of four, then of six, of eight, ten, &c. till every Body be in Motion. 3. When a Couple comes into the first Couple's Place, they must follow the same Way which the preceding Couples have gone. 4. When a Couple is come down to the last Couple, and finds there no Body more to *dance* with, then that same Couple dances again together, and afterwards moves up, always *Dancing*, till they come to the same Place where they have begun, and then all the Repetitions of that Couple are at an End.

Dancing, has always been in use among all Nations, both civiliz'd, and barbarous; though held in Esteem among some, and in Contempt among others. Almost every Body is of Opinion, that of itself, *Dancing*, is harmless. There is a Time, says the Preacher, to *dance*, and sometimes it is even made an Act of Religion. Thus *David* danced before the Ark, to honour God, and express his Excess of Joy, for his Return into the City of *Sion*. *Socrates* learned to dance of *Aspasia*; and the People of *Crete* and *Sparta*, went to the Attack *Dancing*. On the other Hand, *Cicero* reproaches *Gabinus*, a consular Man, with having danced. *Castor* and *Pollux*, are said to be the first who taught the Art of *Dancing*; and that to the *Lacedemonians*: Though others attribute the Invention to *Minerva*, who danced for Joy after the Defeat of the Giants.

The Antients had three Kinds of Dances, the first grave, called *Emmelia*, answering to our low Dances and Pavanes; the second gay, called *Cordax*, answering to our Courants, Galliards, Gavots, and Vaults; the third called *Siccinnis*, was a Mixture of Gravity and Gaiety. *Neoptolemus*, Son of *Achilles*, taught the *Cretans*, a new Sort of *Dance*, called *Pirricha*, or the armed *Dance*, to be us'd in going to War; although, according to the Mithologists, the *Curetes* first invented this *Dance*, to amuse and divert the Infant *Jupiter*, with the Noise, and Clash of their Swords, beating against their Bucklers.

Diodorus Siculus, in the 4th of his *Bibliotheca*, assures us, that *Cybele*, Daughter of *Menoës*, King of *Phrygia*, and *Dindymenis*, his Wife, invented divers Things, and among others, the Flageolet of several Pipes, *Dancing*, the Tabor, and the Cymbal. It is certain, that *Numa* instituted a Sort of *Dance*, for the *Salii*, Priests of *Mars*, who made use of Weapons therein. From these Dances were composed another, call'd *Saltatio Mimicorum*, or the Buffoon's-Dance; wherein the Dancers were dress'd in little Corslets, with gilt Morions, Bells on their Legs, and Swords and Bucklers in their Hands. *Lucian* has an express Treatise, and *Julius Pollux* a Chapter on this Head; *Atheneus*, *Caelius Rhodiginus*, and *Scaliger*, also make mention of this *Dance*.

The *French* are accounted the best Dancers in *Europe*; and the Enemies of the *French* Name, who are always glad of an Opportunity of reflecting on that Nation, right or wrong, reproach them with it as an Imperfection.

The most celebrated *Dancing-Masters*, we have in *England*, are M. L'Abbè, *Dancing-Master* to the Royal Family, *La Garde*, *Lanion*, *Lalley*, *Nivelon*, and several others. But we have some so scandalously ignorant, that they want *Dancing-Masters* themselves; though they find Scholars, because they teach cheap, and well they may since they teach nothing.

There is a Manner of *Dancing*, which of late Years, has much entertain'd the Admirers of those Sorts of Pastimes, called *Rope-Dancing*, and which was perform'd with a wonderful Agility, by the famous *Madame Violante*, and others.

Groddeck, Professor of Philosophy, at *Dantzick*, in his Dissertation, *De funambulis*, defines a *Rope-Dancer*, a Person who walks on a thick Rope, fastened to two opposite Posts; which is precisely what is expressed by the Latin Word *funambulus*. But our *Rope-Dancers*

do more, for they not only walk, but *dance*, and leap upon the Rope.

The Antients, 'tis certain, had their *Rope-Dancers*, as well as we; witness, the *Greek Words Neurobates*, and *Schomobates*, as well as the *Latin, Funambulus*, which every where occur. They had, likewise, the *Gremnobates*, and *Oribates*, that is, People who walk-ed on the Brinks of Precipices; nay more, *Suetonius*, in *Galba*, c. 6. *Seneca* in his 85th Epistle, and *Pliny lib. 8. c. 2.* make mention of Elephants, that were taught to walk on the Rope. *Acron*, an antient Grammarian, and Commentator on *Horace*, takes Occasion to observe, on the 10th Satyr of the first Book, that *Messala Corvinus*, was the first who used the Word, *Funambulus*, and that *Terence* had it from him. But *M. Groddeck* shews that he is mistaken, and that *Messala* lived after *Terence*. The Business is, *Acron* confounds *Valerius Messala*, who got the Surname *Corvinus*, in the War against the *Gauls*, about 200 Years before *Terence*, with one of his Descendants, who was a famous Orator in the Time of *Horace*.

M. Groddeck, coming from the historical to the moral Consideration, maintains, that the Profession of a *Rope-Dancer*, is not lawful; that the Professors are infamous, and their Art of no Use to Society; that they expose their Bodies to very great Dangers; and that they ought not to be tolerated in a well regulated State. But coming afterwards to temperate the Severity of his Morals, he allows that there are sometimes Reasons for admitting them; that the People must have Shews; and that one of the Secrets of Government, is to furnish them therewith, &c.

The antient *Rope-Dancers*, had four several Ways of exercising their Art; the first vaulted, or turned round the Rope, like a Wheel round its Axis, and there hung by the Heels, or the Neck. The second flew, or slid from above, downwards, resting on their Stomachs, with the Arms and Legs extended. The third run along a Rope stretched in a right Line, or up and down. Lastly, the fourth not only walk'd on a Rope, but made surprizing Leaps and Turns thereon.

D I A L L I N G.

DIALLING, (by the *Greeks* and *Latins* called *Gnomonica*, and *Sciatherica*, because it distinguishes the Hours by the Shadow of a Gnomon: By others, *Photo-Sciatherica*, because the Hours are sometimes shewn by the Light of the Sun; and by others, *Horologiography*) is the Art of Drawing Sun, Moon, and Star *Dials*, on any given Plane, or the Surface of any given Body.

As I design to give a Description of those different Sorts of *Dials*, and instruct my Pupil how to draw them, I'll begin by the most common, and most necessary of all of them, which is a *Sun-Dial*, and which is a Draught or Description of certain Lines, on a Plane, or Surface of a Body given, so contrived, as that the Shadow of a Style, or Ray of the Sun, passing through a Hole therein, shall touch certain Points at certain Hours.

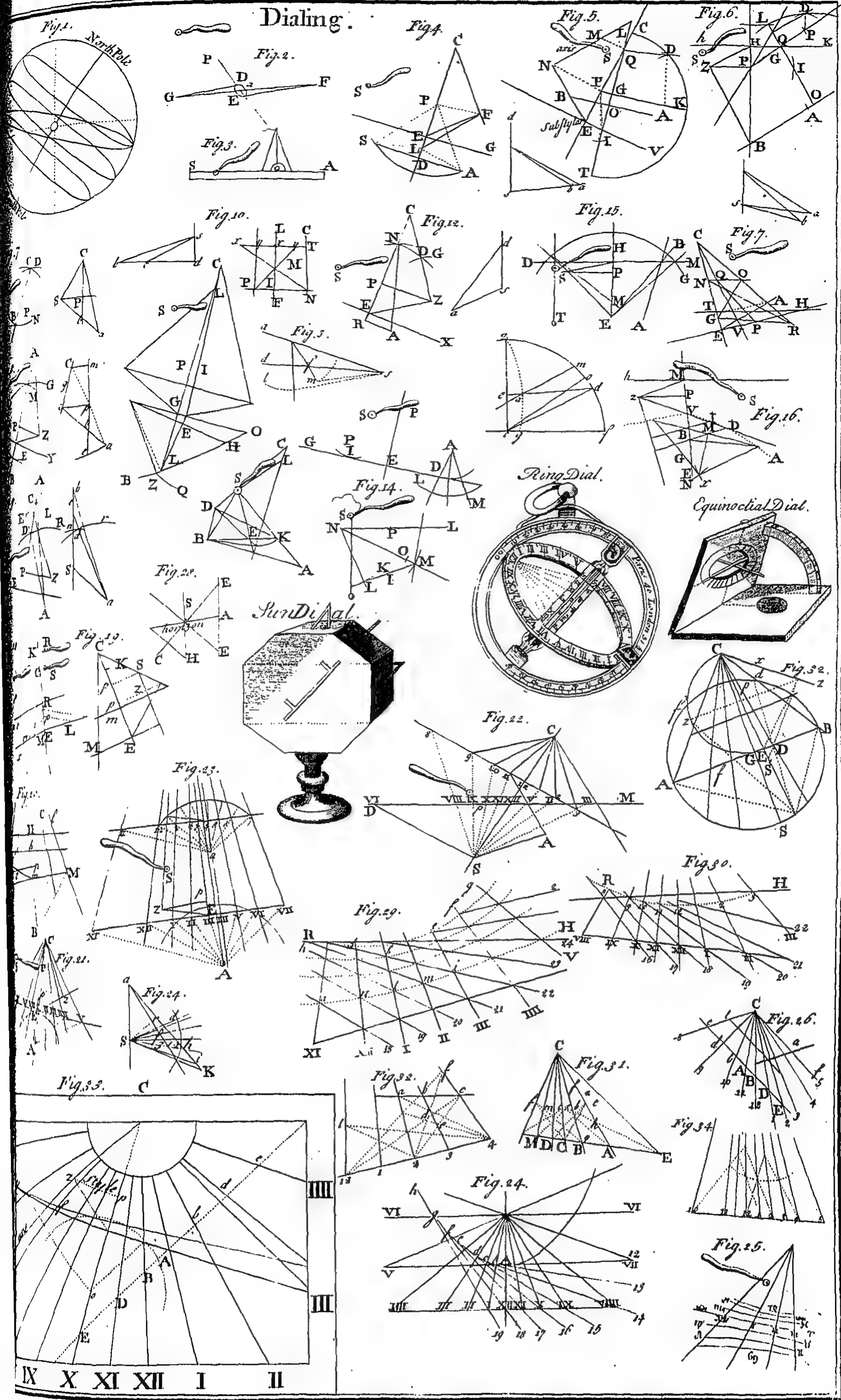
There are different Sorts of *Sun-Dials*, which Diversity arises from the different Situation of the Plane, and the different Figure of the Surfaces, whereon they are describ'd; whence they become denominated, *equinoctial*, *horizontal*, *vertical*, *polar*, *direct*, *erect*, *declining*, *inclining*, *reclining*, *cylindrical*, &c.

Note, That it is impossible we can draw a *Sun-Dial* of any Kind, before we are thoroughly acquainted with the Circle of the Sphere, which is an Instrument (as we have already observ'd in our Treatise of *Astronomy*) whereby we explain the daily Motion of the celestial Bodies, according as they appear to us to move always from East to West, and also the proper Motion of the Sun, which moves from West to East, and makes its Revolution thro' the twelve celestial Signs, in the Space of one Year. We'll only describe here, those Circles of which the Sphere is composed, that belong to our present Subject: Those Circles, whose Planes pass through the Center of the Earth, are called great Circles of the Sphere, and all the others are less; but before we speak of those Circles, we ought to consider the *Axis* of the Sphere, which we have already conceiv'd to be a straight Line, about which the Instrument is turned. The Earth is placed in the Middle of this Instrument, and consequently the *Axis* passes through the Center thereof. The Plane of the *equinoctial Circle*, or *Equator*, is at right Angles to the *Axis*, and we have been inform'd in our Treatise of *Astronomy*, that this Circle divides the Sphere into two equal Parts, whereof one is called *Septentrional*, and the other *Meridional*. The *Ecliptick*, is another great Circle, whose Plane makes an Angle with the *Equinoctial*, of 23 Degrees 30 Minutes;

the Sun moves under this Circle, going from the West towards the East, and makes one entire Revolution, in 365 Days and near 6 Hours. The Inclination of this Circle towards the *Equinoctial*, causes the different Declinations of the Sun, in Regard to the *Equinoctial*: It is divided into twelve equal Parts, called Signs; and we begin from the Intersection thereof with the *Equinoctial*, proceeding towards the North. The *Tropicks* are two Circles parallel to the *Equinoctial*, which touch the *Ecliptick* in the Points of its greatest Distance from the *Equinoctial*; therefore these Circles are distant from the *Equinoctial*, 23 Degrees 30 Minutes, on one Side towards the North, and on the other Side towards the South; so that it is manifest, that when the Sun is in the common Intersection of the *Ecliptick* and *Equator*, the Motion of the Sphere about its *Axis*, which goes from East to West, and is called the Motion of the *Primum Mobile*, makes him appear to us in the *Equinoctial*; and also when he is in his greatest Distance of the *Equinoctial*, the same Motion of the *Primum Mobile*, makes him appear to us to move in the *Tropicks*. The *Zenith* is an imaginary Point in the Sphere, mark'd by a straight Line coming from the Center of the Earth, and passing by some Place of the Superficies thereof. This Line is called the vertical Line of that Place. The *Horizon* is a great Circle, whose Plane cuts the vertical Line, at right Angles. The *Horizon* of a Place distinguishes the visible Part of the Heaven of that Place, from that Part of the Heaven which is not there seen. The *Meridian* is a great Circle which passes through the *Poles* and *Zenith*, the Plane whereof, at right Angles with the Planes of the *Equinoctial*, and *Horizon*; because this Circle passes through the *Zenith* and *Poles*.

If we suppose the *Equinoctial* to be divided into 24 equal Parts, beginning from the *Meridian*, the 6th and 8th Part shall fall on the Intersections of the *Horizon* and *Equinoctial*, because the *Meridian* and *Horizon*, are at right Angles to one another; and if we imagine other Circles, like the *Meridian*, that is to say, that pass through the *Poles* of the World, and Point of Division of the *Equinoctial*; those Circles, which we call *Meridians*, shall be the *Hour-Circles*, among which, is the *Meridian* of the Place, whereof all the Planes intersect one with another in the *Axis*. We may also conceive others, which divide each Part into two, or four, to mark the Half-Hours, and Quarter-Hours; for if we suppose these Circles to be fix'd, then when the *Primum Mobile*, turns the Sun with his *Ecliptick* about the *Axis*,

Dialing:



Axis, the Time of his apparent Course shall be divided into Hours, Halves, and Quarters, by these *Meridians*. Also we number the Declination of the Sun, upon the like *Meridians*, which do all intersect the *Equinoctial* at right Angles, which we make to pass through the Center of the Sun in the *Ecliptick*: We number this Declination from the *Equinoctial* towards the Poles; therefore, if it is either *South* or *North*, the Angles of Declination are measured by Arches or Circles.

Those Circles that pass through the vertical Lines, are called vertical Circles, or *Azimuth*, and their Planes are perpendicular to the Plane of the *Horizon*; they serve to measure the Height of the Sun above the *Horizon*, which is numbered from the *Horizon* towards the *Zenith*.

It is manifest from that which has been said before, that there are infinite *Horizons*, and *Meridians*, and that there are only these two great Circles, which may change according to the different Places on the Earth, for they are established by the vertical Line. The Amplitude of Rising or Setting, is counted on the *Horizon*, beginning from the Points where the *Equinoctial* cuts the *Horizon*, and is numbered towards the South or North. If we conceive that in the Revolution of one Day the *Horizon* moves, as being fastened to the *Axis*, so as it cannot change its Inclination, then when it shall pass by the 24 equal Divisions of the *Equinoctial*, it shall represent the 24 Circles of the *Italian* or *Babylonian Hours*.

Our Pupil having acquired this particular Knowledge of the Sphere thus adapted to *Dialling*, must be informed next of the principal Parts requisite for the Construction of *Sun-Dials*. Those Parts are the Center of the *Dial*, and the different Lines it is divided into. The Center of the *Dial*, is any Point taken on the Superficies of the Earth, and considered as its Centre in Relation to the Motion of the Sun; therefore, if we place a Style (which is a pointed Rod) upon any plain Surface, and then consider the Point of that Style, as the Center of the Earth, the Intersection of that Surface, with the Planes of the Hour-Circles, of the *Equinoctial* or *Equator*, of the *Horizon*, and of the other great Circles, shall be straight Lines, which retain the Names of the Planes of the Circles from whence they are produced. All these Lines on that plain Surface with the Style, make the *Sun-Dial*. The Shadow of the Point of the Style, which is one of the Points of the *Axis*, shews the Hours: And if the *Axis* which passes by the Points of that Style, meets with the Plane of the *Dial* in any Point, that Point is called the Center of the *Dial*; for it is evident that all the Hour-Lines shall meet in that Point. It is also evident that the Shadow of the Point of the Style gives the Hours, and shews when the Sun meets with any one of the Circles of the Sphere; for when the Sun comes to a great Circle, the Shadow of the *Axis* is extended in the Plane of that Circle, if that Circle passes by the *Axis*; and if it passes not by the *Axis*, the Shadow of the Point of the Style, shall be in the Plane of that Circle; for the Planes of great Circles pass by the Point of the Style.

If we conceive a conical Superficies, which has for its Base a less Circle of the Sphere, and for its *Vertex* the Point of the Style, that conical Superficies shall meet the Surface of the *Dial* in a curve Line; so as when the Center of the Sun shall touch that less Circle, which is the Base of the conical Superficies, the Shadow of the Point of the Style shall touch the curve Line, which is the Meeting of that curve Superficies with the Plane of the *Dial*; for the Point of the Style is on that Superficies whereof it is the *Vertex*. The Foot of the Style, is that Point on the Plane of the *Dial*, which is the Meeting of a straight Line drawn perpendicularly to that Plane, and which passes by the Point of the Style.

If the Plane of the *Dial* be considered as the Plane of the *Horizon* of any Place, the straight Line that

passes by the Point of the Style, and by its Foot, shall be the vertical Line of that Place; and the Plane that passes by the Vertical and by the *Axis*, shall be the proper *Meridian* of that Place, considered as the *Horizontal* of a Place.

The Meeting of the *Meridian* and Surface of the *Dial*, is called the *substylar Line*, or the *Meridian* of the Plane or Surface of the *Dial*, which we ought to distinguish from the *Meridian* of the Place, which is the Meeting of the *Meridian* proper to that Place, and of the Surface of the *Dial*, at least if they be not coincident, which happens when the *Dial* does not decline from the East or West. We see by the Position of these Lines, that the *substylar Line* is always at right Angles with the *equinoctial Line*.

We ought to make the *Dial* so as the Foot of the Style be not incumber'd, for that Point serves for many Operations; therefore, the Style must be planted a little obliquely upon the Surface. By the Height and Length of the Style, is understood the straight Line drawn from the Point to the Foot thereof. The Arches of the *Signs* on the Surface of the *Dial*, are the Descriptions of the Parallels to the *Equinoctial*, which pass through the 12 equal Divisions of the *ecliptick Line*, which shews the Beginning of the *Signs*.

It does not suffice to be inform'd of the principal Parts, and Lines which compose our *Sun-Dial*; we must know, likewise, how to find those principal Parts, and how to mark or draw those Lines; or rather, how to reduce the *Art of Dialling* into Practice.

This Practice has for its chief Foundation, the Marking exactly the *Points of Shadow*, which the *Penumbra* renders very difficult; but which, however, can be effected two Ways.

The first is to fit a small round Plate to the Point of the Style, which may be parallel to the Plane of the *Dial*, whereof the Center may be join'd to the Point of the Style; then having drawn the Shadow of the said Plate on the Plane of the *Dial*, take the Middle of that Shadow, which shall be the Shadow of the End of the Style, at the same Time when we observed the Shadow of the Plate.

The second Way is to make a small round Hole in a little Piece of Paste-Board, or thin Plate, or other like Body, and having apply'd it to the End of the Style, so as the Center of the Hole may be joined to the Point of the Style, and that the small Plate may regard the Sun perpendicularly; the Light of the Sun shining through the Hole, shall make a clear Circle, or Oval. D E, Fig. 2. in the Shadow of the Plate on the Plane of the *Dial*, which we draw on the said Plane; and if it be an Oval, having drawn a straight Line, D P E from the Point P, which is the Foot of the Style, whereof F is the Point, which may pass through the Centre of that Oval, and cut it in D and E, or draw D G and E F, parallel to one another, and making any Angle with D E, D G being made equal to D S, and E F, equal to E S, the Line G F, shall cut D E, in the Point A, which shall be the Shadow of the Point of the Style S, at that Time when the Oval was drawn. But we may take the Center of the Oval for the Point A, without falling into any sensible Error, as we may see by the Operation in the Plate. But if the Shadow be a Circle, the Center of that Circle shall be the Shadow of the Point of the Style.

After we have mark'd the Points of Shadow, we must draw the *horizontal Line*, by applying a Rule, Fig. 3. A S so as one of the Edges thereof may be level, and touch the Point S, of the Style, which is planted upon the Plane of the *Dial*, and that End of the Edge of the Ruler, may touch the Plane of the *Dial* at the Point A, which shall be one of the Points of the *horizontal Line*. By the Point A, we draw a level Line on the Plane of the *Dial*, which shall be the *horizontal Line*.

From this we pass to the *substylar Line*, which is easily found by the Amplitude of the Sun's Rising and

and Setting upon the Plane of the *Dial*, in this Manner: When the Sun begins to rise on the Plane of the *Dial*, we must mark the Shadow of a small Thread extended from the Foot of the Style to its Point; and do the same when the Sun sets on the Plane of the *Dial*, the Angle comprehended between these two Lines of Shadow, whose *Vertex* is at the Foot of the Style, being divided into equal Parts, shall give the *substylar Line*.

The *substylar Line* being made, we find the *Center of the Dial*, by placing a Style on the Plane of the *Dial*, whose Foot we suppose to be P, and Point S, Fig. 4. and the Point of Shadow A, and *substylar Line* C P. we make the Angle $d S a$, equal to the Sum or Difference of a right Angle, and of the Sun's Declination; $S a$ being made equal to S A, we take any Point, as d , upon the Line S d , and draw the straight Line $a d$. From the Point A, we draw the straight Line A R, perpendicular to the *substylar Line* C P, and from the same Point A, as a Center, and at the Distance $a d$, we describe the Arch N, cutting the *substylar Line* in N. From the Point R as a Center, and at the Distance R N, we describe the Arch N D; then we erect the Perpendicular P Z at right Angles to the *substylar Line*, and equal to P S the Height of the Style, then from the Point Z, as a Center at the Distance S d , describe the Arch G D cutting the Arch N D in D: The Line Z D determines the Situation of the *Axis*, in Respect of the *substylar Line*, and if it meets at the *substylar Line*, as at the Point C, that Point C shall be the Center of the *Dial*.

The Center of the *Dial* being found, we'll draw the *equinoctial Line*, by drawing the straight Line Z E, perpendicular to Z D, meeting the *substylar Line* in E: The Line V E perpendicular to the *substylar Line* drawn through the Point E, shall be the *equinoctial Line*.

Our next Operation is to place the *substylar* and *equinoctial Lines*, and the Center of the *Dial*, and to determine the Position of the *Axis* (any two Points of Shadow being given, with the Declination of the Sun at the Time of Observation of the Points of Shadow) which cannot be done without having placed, first, a Style on the Plane of the *Dial*, whereof the Point may be S and P, Fig. 5. the Foot, and any two Points of Shadow, A and B taken at Pleasure; making, besides, upon a certain Plane, the Angle $d S a$, equal to the Sum or Difference of a right Angle, and that of the Declination of the Sun, on that Day on which the Points of the Shadow were marked, according as the Declination is North or South; for we will have a Point of the *substylar Line* as Q, which may answer to a Point of the *Axis*, which may be more North than the Point of the Style; we must make the Angle $d S a$, equal to the Sum of a right Angle, and Angle of the Declination of the Sun, if the Declination be North; but equal to the Difference of a right Angle, and Angle of the Declination, if it be South.

This done, we'll take two small Rods of any firm Matter, as of Wood of a sufficient Thickness, or of Iron; and make them pointed at the Ends, and equal in Length to the straight Lines $a d$, $b d$; it is not material whether they be straight or crooked, if the Distances between their Points be equal to $a d$ and $b d$. We'll put one of the Points of that Rod which is equal to $a d$, on the Point of Shadow A, and one of the Points of the other Rod to the Point of Shadow B, and join them together by the other Points, but so as the Points that are joined together, may approach or fall back from the Point of the Style, without altering the other Points of the Rods, which are set on the Points of Shadow A and B; then we take with the Compasses, or otherwise, the Distance between the Points a and d , and set that Distance between the Points of the Style and the Points of the Rods that are joined together: By this Means the common Points of the Rods being fix'd, shall be one of the Points of the *Axis*, which ought to pass by the Point of the Style,

therefore the Situation of the *Axis* shall be determined.

By the common Point of the Rods so fix'd, which I call D, having drawn a Line perpendicular to the Plane of the *Dial* which shall meet it in the Point Q, the Line P Q shall be the *substylar Line*. The Point C, on the Plane of the *Dial*, where it is met by the Line D S, drawn by the Point of the Style, S, and by the End of the Rod D, shall be the Center of the *Dial*; from whence we may draw the *Equinoctial Line* in the Manner abovementioned.

But suppose we had but one single Point of Shadow given, with the Declination of the Sun, and the Height of the Pole above the Horizon; we must place the *substylar Line*, the Center of the *Dial*, and the *Equinoctial Line* in the following Manner:

Having placed a Style upon the Plane of the *Dial*, whose Point may be S P, Fig. 6. the Foot, and A one Point of the Shadow, we draw a horizontal Line, in the Manner above-demonstrated, and by the Point P draw the Lines B P H, perpendicular to the horizontal Line b H, and P Z parallel to H b, and equal to the Height of the Style P S; then from the Point H, where P H meets with the horizontal Line, we draw H Z and Z B perpendicular to Z H, which shall meet with H P at the Point B: if the horizontal Line passes not through the Point P, First we let it meet at the Point B.

Then we make the Angle $d S a$, upon some Plane, equal to the Sum or Difference of a right Angle, and of the Declination of the Sun at the Time when the Point of Shadow was observed; and make the Angle $d S b$ equal to the Sum of a right Angle, and the Height of the Pole above the Horizon. Taking afterwards at Pleasure, the Point d on the Line S d , we make S b equal to Z B, and S a equal to the Length of the Shadow from the Point of the Style S to the Point of Shadow A, and draw the straight Lines $a d$, $b d$. By the Points A and B we draw the straight Line A B, and from the Point B, as a Center, at the Distance $b d$, we describe the Arch $f b$, either above or below the Line A B; and likewise from the Point A as a Center, and at the Distance $a d$, describe the Arch $g d$, cutting the Arch L F at the Point L, and from the Point L draw the straight Line O L perpendicular to A B.

From the Point O as a Center, at the Distance O L we describe the Arch D L; and from the Point P draw the straight Line P G K, perpendicular to O L; and from the same Point P, at the Distance $d S$, describe the Arch I, either on the one or the other Side of G, cutting the Line L O at the Point I. Then we make G K equal to P S, the Height of the Style, and from the Point K, at the Distance G I describe the Arch R D, cutting the Arch D L in D, and from the Point D draw the straight Line D Q perpendicular to L b, and the Line P Q, which passes through the Points P and Q, is the *substylar Line*. If the Point Q be too near to P, we may find another, by taking another Point d on the Line $f d$; consequently we place the *equinoctial Line*, and the Center of the *Dial*, as we have done it in the preceding Practices; having this Advantage, besides, that the Line which passes through the Point B, and through the Center of the *Dial*, shall be the *meridian Line*.

If the horizontal Line, passes through the Point P, or if the Point B be too far distant from the Point P, we must fasten another Style upon the Plane of the *Dial*, whereof the Point may pass by the Line of the Plummets hang'd from the Point S of the Style, the Point of that second Style being called B, we perform the Operation as before to find the Lines $d a$, $d b$; but we may use the small Rods above-mentioned, otherwise the Operation would be too long.

Next we must endeavour to find the Points of the Hours of 6 and 12 on the *equinoctial Line*, Fig. 14. and to draw the *meridian Line*, which must be done by supposing P S to be the Height of the Style, whereof P is the Foot, and S the Point; and supposing, likewise, N S to be the horizontal Line, and M N

M N the *equinoctial Line*; the Point N where the *equinoctial Line* meets with the *horizontal Line*, is the Point where the Hour of 6 intersects the *equinoctial Line*.

From the Center N, and at the Distance N S, equal to the Height of the Style, we describe the Arch K H, and taking any Point as O, in the *equinoctial Line*, for a Center, at the Distance O S we describe the Arch I H intersecting the Arch K H in H, then draw the straight Line N H, and H M perpendicular to N H; the Point M where H M meets the *equinoctial Line*, is the Point where the *meridian Line* ought to intersect the *equinoctial Line*.

Then having hang'd up a Line with a Plummets *f*, so as the Line may pass by S the Point of the Style, we mark any Point as C on the Plane of the *Dial*, so as we may see with one Eye, the Points M and C both hid together by the Line of the Plummets, this is called burning, and the Line M C shall be the *meridian Line*. But if the Centre of the *Dial* was given and that it was the Point C, we must mark some Point, as M, on the Plane of the *Dial*, which we may see to pass by the Line of the Plummets, with the Point C, and the Line C M shall be the *Meridian*. We may also draw this *meridian Line* in the Night with a Candle, in holding it at a Distance from the Line of the Plummets, so as the Shadow thereof may pass by M, or by the Point C, which of them is given; for the Shadow of that Line shall be the *meridian Line*.

When only one Point of Shadow is given with the Height of the Pole, and the Declination of the Sun, we draw the *meridian Line*, and find the Point of the Hour-Line of 6, on the *horizontal Line*, by placing a Style on the Plane of the *Dial*, whose Point be S, and the Foot P, Fig. 15. drawing the *horizontal Line* H b; and from the Point P drawing likewise P H perpendicular to H b; drawing afterwards P Z parallel to H b, and equal to P S the Height of the Style, and making H E equal to H Z.

Then having mark'd the Point of Shadow A, as far from Noon as it is possible, we hang a Plummets T, so as the Line thereof may pass by S the Point of the Style, and burn it (as we did in the foregoing Practice for the *Meridian*) marking the Point b on the *horizontal Line*, by which we see the Line pass, then when it also passes by the Point of Shadow A, we draw the straight Line b E; drawing afterwards an Arch of a Circle Z o f on the Center C at any Distance, and making Z o equal to the Height of the Pole above the *Horizon*, and drawing the Lines o c, z c, to c the Center of the Circle.

We then make the Arch o m equal to the Declination of the Sun, at the Time when the Point of Shadow was made towards Z, if the Sun be in the North Signs, and towards f if it be in the South Signs, for those that have their *Zenith* in the North Part of the Sphere; but on the contrary, for those that have it in the South Part; and draw a m parallel to o c. We afterwards draw c f perpendicular to c z, from the Center c, and make the Angle d c f, equal to the Angle b S A, and draw the Line d e parallel to f c, meeting c z in o, and a m in a.

On the Point E, as a Center, at the Distance d e, we describe the Circle B D, meeting E b (prolonged if it be necessary) at the Point B; we make B M equal to d a, and from M raise D M, perpendicular to E B, intersecting the Circle B D in D, then drawing E D (prolonged if it be necessary) and the Point f where it intersects the *horizontal Line*, shall be the Point of the *Meridian* upon the *Horizon*; and E G being drawn perpendicular to E D, gives the Point G, where the Hour-Line of 6 meets with the *horizontal Line*.

Note, That the Line M D, which is drawn perpendicular to B E, may meet with the Circle B D on either Side of the Point B; but we must take Care that if the Point of Shadow A, is mark'd before Noon, to make Use of the Point D, which is on the Right-Hand of the Point B, as in the Example; and if the Point A was marked after Noon, we must

take the Point D where M D meets the Circle on the Left-Hand of B, to have the Position of the *meridian Line*; if D E meets not with the *horizontal Line*, but is prolonged towards E; the Point F shall appertain to the Line of Midnight: All this must be understood of those that have their *Zenith* on the North-Side of the *Equinoctial*, for it is contrary with those which have their *Zenith* in the southern Hemisphere. If the Line E D meets not the *horizontal Line*, being likewise prolonged towards E, then the *Dial* shall have no Line of Mid-Day, nor of Mid-Night, and the Plane of the *Dial* shall be either oriental, or occidental.

Note, Also, that the Angle H E F, made by the Line E D, with the *horizontal Line* E H, is the Angle of the Declination of the Plane. By the foregoing Practice, the *meridian Line*, or the Line of Midnight, may be drawn by the Point f.

Some of the foregoing Operations may be abridged in the following Manners:

1. Having found the *substylar Line* p e; Fig. 18. and the *equinoctial Line* e v for the Style S p, if we would remove the *substylar* and *equinoctial Lines* to another Place of the Plane of the *Dial*; the Line P E parallel to p e shall be another *substylar Line*, and V E parallel to e v, or perpendicular to P E, shall be the *equinoctial Line*, and we determine by the following Method, the Position of a Style for the two Lines P E, E V, whereof the Height shall be given of any Length, or we will determine the Height of a Style, whereof the Position shall be given upon the *substylar Line* P E. First, we'll let the Line A R be given for the Height of the Style, which ought to be set for the *substylar* and *equinoctial Lines* P E, E V. We'll make E P equal to e p, and set it the same Way; (that is; we'll set the Point P above the Point E, if the Point p be above the Point e, and below it, if it be below it) and make E Z equal to p f, and E Z equal to R A given; and we'll draw z P and Z R parallel to Z P, meeting E P in R; and the Point R shall be the Foot of the Style, the Height whereof, R A, is given: Therefore if we fix a Style, whereof the Foot may be R, and the Distance between the Point thereof A, and Foot R may be the Height equal to the Line Z E, the Proposition is satisfied: But if the Point R were given for the Foot of the Style, and the Height were requir'd, we'll draw P Z as before, and by the Point R, draw R Z parallel to P z, and E Z shall be the Height of the Style, whose Foot is the given Point R.

2. The *substylar Line* C E, the *equinoctial Line* E V, and the *meridian Line* C M, answerable to the Style S P, being given, we may take what Point we will in the *substylar Line*, ask for the Center of the *Dial*, without altering the *substylar Line*, or *equinoctial*; and the Line K m drawn parallel to C M, shall be the *meridian Line*; but if the Height and Position of the Style must be chang'd, by making E z equal to P S, and drawing M P and P Z, and m R and R Z parallels to M P and P Z, and the Point R shall be on the *substylar Line*, which is the Foot of the Style, whereof the Height R Z is perpendicular to the Point R on the Plane of the *Dial*.

3. If the *substylar Line* C E, was given with the *meridian Line* C M, answering to the Style P S, we may take any Point, as p, to be the Foot of a Style, whereof the Height is to be determined; or the Style being given of any Height, to determine the Position of the Foot p, without changing either the *Meridian*, or the Center of the *Dial*. If the Foot of the Style be given, and we are to determine its Height by the Foot of the Style P, for the finding of the *meridian* and *substylar Line*, we'll draw P S, perpendicular to the *substylar Line*, and equal to the Height of the same Style, drawing C S by the Center of the *Dial*, and from the given Point p, drawing likewise p s, parallel to P S, till it meets C S in the Point S, and p S shall be the Length of the Height of the Style, which ought to be placed at the Point p, and the *Meridian* C M, and the Center of the *Dial* C, are not changed. But

if pS were given for the Height of the Style, it must be put upon PS prolonged, if it be necessary, then Pz , and zS must be drawn parallel to CP , to meet with the Line CS in mS , and Sp being drawn parallel to SP , shall give the Point p , on the *substylar Line*, for the Foot of the Style requir'd, whereof the Height is given.

4. The *Meridian* CM , Fig. 19. being given, with the *equinoctial Line* EM , we may find another *Equinoctial* as eM , without changing the *Meridian*, the which *Equinoctial* eM , shall make the Angle EMC , but we must find another Style by the following Method: If the Center of the *Dial* be given at the Point C , having drawn (by the Foot of the Style p , which has served to find the *Meridian* and the Center C) pS perpendicular to the *substylar Line* Cp , and equal in Length to the same Style, we'll draw eS parallel to ES , and from the Point S , Sp parallel to Sp , meeting the *substylar Line* in the Point p , which shall be the Foot of the Style requir'd, whereof pS shall be the Height. But if we have not the Center of the *Dial*, we must draw the Line Sf by the Point S , which determines the Inclination of the *Axis* with the *substylar Line*, and we shall find as before, the Point p for the Foot of the Style requir'd, whereof the Height shall be pS .

5. If after we have drawn the *meridian Line* CM , Fig. 20. and the *substylar Line* Bp , we cannot have the *Equinoctial*, because the Style has been put too long, we may diminish it as much as we please, without changing the Foot thereof, or the *substylar Line*; but we must find another *meridian* and another *horizontal Line*, which may answer to that Style, and these *meridian* and *horizontal Lines*, shall be parallel to the first *meridian* and *horizontal Lines*. Therefore we draw the Line emM , by any Point of the *substylar Line* at e , which may be perpendicular to it; that Line may be the *equinoctial Line*: But the Height of the Style must be changed in drawing eS perpendicular to the Line Ss , which determines the Inclination of the *Axis* with the *Substyle*, and that Line eS meeting Sp , which is perpendicular to the *substylar Line* by the Foot of the Style, and which is its Height, so that for the *equinoctial Line* em , pz shall be the Height of the Style requir'd; but there must be another *Meridian* found, whether the Center of the *Dial* be found or not.

6. A *Dial* being drawn on a Plane, we may transfer it into what other Place we will on the same Plane, by drawing of parallel Lines to those that are drawn, so that we keep the same Order and the same Proportion between them in their Meetings, but the Style ought to be put at the Point which answers to the Point of the first, which is for its Foot.

Tho' all the foregoing Practices seem to be clearly enough demonstrated, as well in the Plate, as by the Reasoning, they nevertheless, cannot be well executed without some farther Instructions, viz. 1. With Regard to the different Expositions of the Planes propos'd, on which the *Sun-Dials* are to be drawn. 2. How to mark the Points of the *astronomical Hours* on the *equinoctial Line*, and how to draw by those Points, the Hour Lines. 3. How to mark the Points of the *astronomical Hours* on the *horizontal Line*, and how to draw the Hour Line by those Points. 4. Six Intervals of Hours following one another being given, how to draw all the other Hours. 5. How to draw the Parallels of the twelve Signs. 6. The *equinoctial Line* being given, if we may draw a Parallel to it by a Point given on an Hour Line. 7. How to draw the *Italian* and *Babylonian Hours* upon an *horizontal Plane*. 8. How to draw the *Italian* and *Babylonian Hours* on a Plane which is not *horizontal*. 9. How to continue the Description of the *Italian* and *Babylonian Hours*, when the Parallel of the *Equator* is wanting on the Plane of the *Dial*. 10. Four *astronomical Hours* being given, following one another in Order, with the *equinoctial Line*, how to find the other Hours. 11. A *Dial* being given, which is already drawn, how to find the Foot of the Style, which serv'd to draw it, and to determine the Height thereof. 12. How to place

the *Axis*. 13. How to draw *Dials* by Reflexion.

1. We may know the Disposition of the Plane in regard of North or South (which must be necessarily known before we begin any Thing) by a small Declinatory, which presently shews on what Side is the North, South, East, or West; which those that are used to observe the Sun, may know by seeing in what Manner it shines upon the Plane, according to the Hour and Season of the Year. Then we may well conceive after what Manner the *Axis* shall meet with the Surface, and consequently may judge of the Position of the *substylar Line*, of the *Equinoctial*, and also of the whole *Dial*. But considering a *Dial* wholly made, it is not difficult to know, among divers Manners, which we may use, that may be most fit, and most easy for the Construction of the *Dial*; therefore we may easily see that it would be useless to find the Center of a *Dial*, or the *Meridian* of a Plane which comes near either to the East or West, and that the *equinoctial Line* being set on such a Plane, we need not find the Point of Mid-Day, and that we must use the Point of the sixth Hour, to begin the Divisions of the horary Intervals on that Line, or on the *horizontal Line*. That on these Sorts of Planes we cannot use the Practices where we ought to have the Points of Shadows after Mid-Day, which may be answerable to others taken in the Morning; for if the first Point has been marked a little too far from the *Meridian*, we can never have its correspondent Point: That we must not use the Practice of correspondent Points of Shadows, or the Tract of the Shadow, if the Circle that is described from the Foot of the Style as a Center, meets that Tract in Angles too acute; for we cannot determine exactly that Meeting, and this Inconveniency may happen to all Practices on all Sorts of Planes in any Season of the Year: That if the *Dial* be large, and the Declination of the Sun has chang'd considerably between the Observations of the Points of Shadow, we have not exactly the Lines which we seek by those Practices, where we suppose that it has not been changed between the Observations.

In the following Practices, we suppose always that the *equinoctial* or *horizontal Line* is drawn, and that we have mark'd on that Line, the Point where the Hour 12 or 6 meets with it; at which Points we begin the Division of the Hours on those Lines; but to draw them we must have the Center of the *Dial*, or at least the Inclination of the *Axis* to the *substylar Line*; as taught at the Beginning of this Treatise.

2. We mark the Points of the *astronomical Hours* on the *equinoctial Line*, and by those Points draw the Hour Lines in this Manner; we suppose PS , Fig. 21. to be a Style, whereof S is the Point, and P the Foot, and $E7$ is the *equinoctial Line*, on which the Point 7 is the Meeting of the *Equinoctial* with the *Meridian*, and the Point 8 is the Meeting thereof with the Hour of 6 and with the *Horizon*; PEA is the *substylar Line*, which meets with the *Equinoctial* in E .

This presupposed, we make EA on the *Substyle* equal to ES , which is the Distance between the Point E of the *Equinoctial*, and S the Point of the Style; we draw $A7$ or $A8$, or both of them, if we have these two Points on the *equinoctial Line*; which two Lines $A7A8$ ought to make a right Angle, at the Point A . Then on the Point A as a Center, at any Distance, we describe an Arch of a Circle bc , which cut the Lines $A7$ and $A8$, at the Points b and c , and divide the Circle from 15 , to 15 Degrees, beginning at the Point b , or at the Point C ; then we draw straight Lines from the Center A , and by the Points of the Division of the Circle, which must be prolonged, if it be necessary, to the *equinoctial Line*, on which it gives the Division of the Hours, which are to be mark'd according to the apparent Motion of the Sun from East or West: Then by the Center of the *Dial*, and by the Points of the Hours which are mark'd upon the *equinoctial Line*, we draw straight Lines, which are the Hour Lines.

But if we have not the Center of the *Dial*, and have only the Inclination of the *Axis* Iz , to the *substylar Line*

Line eE , we must take any Point as e , on the *sub-sylar* Line $e12$, parallel to the *equinoctial* Line $E \times 11$, and drawing $e z$ perpendicular to $Z z$, make ea equal to $e z$, and by the Point a draw the straight Lines $a11$, $a12$, $a1$, &c. parallel to the Lines $A11$, $A12$, $A1$, &c. and by these Points, where these Lines meet with the Line $e12$, and by those which are correspondent to them on the *equinoctial* Line, draw the Hour Lines $11 XI$, $12 XII$, $1 I$, $2 II$, &c.

3. We mark the Points of the *astronomical* Hours on the *horizontal* Line, and draw the Hour Line by those Points, in the following Manner:

We make the Line MHD , Fig. 22. the *horizontal* Line, and S the Point of the *Style* given, whereof P is the Foot; by that Point P , we draw the Line PH perpendicular to the *horizontal* Line; making M the Point, where the *meridian* Line intersects the *horizontal* Line; upon the Line HP , we set HS equal to HS , and draw the straight Line SMa , and make the Angle MSA equal to the Angle of the Elevation of the Pole above the *Horizon*; then from any Point as A , taken on the Line SA , we raise a Perpendicular from 12 to SA , till it meets with SM in 12 , and draw the Lines 9 , 12 , 4 , perpendicular to SA , and make $12a$ equal to $12A$; and from the Point A as a Center, we describe a Circle at any Distance, and divide it into equal Parts from 15 Degrees to 15 Degrees, beginning the Division where the Line $a12$ intersects the Circle, and draw Lines from the Point a to the Divisions of the Circle, to meet with the Line 9 , 4 , at the Points 9 , 10 , 11 , 12 , 1 , 2 , 3 , 4 , &c. and by the same Points and the Point S , we draw straight Lines, which we make to meet the *horizontal* Line in the Points of the Hours requir'd, which we mark according to the diurnal Motion of the Sun, of which the Point M is Noon, and D the Point of the Hour 6. If the Line SD drawn perpendicular to SM , meet with the *horizontal* Line at the Point D , that Point shall be the Hour 6 on the *horizontal* Line, which is the same Point where the *horizontal* Line ought to meet with the *horizontal* Line.

If we have not the Point of Mid-Day on the *horizontal* Line, and we have but D the Point of the Hour 6; we then draw SD and SM perpendicular to SD ; then we do the same as we did before to find the Points of the Hours on the *horizontal* Line. The Hour Lines are to be drawn from C the Center of the *Dial*, and by the Points of the Hours which have been found on the *horizontal* Line.

4. We suppose the 6 Intervals of Hours from Fig. 23. CA to Cf to be given, we draw all the other Hours, by making Ee parallel to $c5$, cutting cA in the Point ACB , in the Point BCD , in the Point D , &c. and we make Ab equal to AB , Ad equal to AD , &c. and from the Center C , and through the Points bdc , &c. we draw the Lines of the Hours that follow the precedent Hours. When we will also have other Hours following the first or last found, we must repeat the Operation in drawing another Line as Ee , parallel to that which is the last of the six Intervals of Hours. If the *Dial* has no Center, we must draw another Line as St parallel to Ee , on which we are to find the Points of the Hours as we have found them on the Line Ee , and in joining the horary Points of the two parallel Lines Ee and St , we'll have the Hour Lines requir'd.

5. We draw the Parallels of the twelve Signs, Fig. 24. by drawing first the Lines SC and SA at right Angles to it at the Point S ; we make the Angles ASd , ASk , each 20 Degrees 30 Minutes; and the Angles ASf , Asi , each of 20 Degrees 11 Minutes, and the Angles ASg , ASk , each of 11 Degrees 30 Minutes: The Line SA denotes the *Equinoctial*, which is the Beginning of *Aries* and of *Libra*; the Line SK , denotes the Beginning of *Taurus* and *Virgo*; Si the Beginning of *Gemini* and *Leo*; Sk the Beginning of *Cancer*, which is the Tropick of the same Sign; Sg the Beginning of *Scorpio* and *Pisces*; Sf the Beginning of *Sagittarius* and *Aquarius*; Sd the Beginning of *Capricorn*, which is the Tropick of the

same Sign. If the Center of the *Dial* be towards the North in Regard to the Point of the *Style*, we make Sc equal to SC of the *Dial*, which is the Distance between the Point of the *Style* and the Center; but if the Center be towards the South, in Respect of the Point of the *Style*, we make Sc upon cS prolonged on the other Side of the Point S .

Next we must find the Points of the Parallels of the Signs upon the Hour Lines; as for Example, on the Line of Mid-Day, we must take the Distance $SXII$, from the Point of the *Style* S to the Point XII , which is the Intersection of the Line of Mid-Day with the *Equinoctial*, and set it from S to 12 upon the Line SA , and having drawn the Line $c12$, which cuts the Lines of the Signs in the Points d , f , g , h , i , k , then we transport the Intervals $12b$, $12i$, $12k$, $12g$, $12f$, $12d$, in $XIIH$, $XII I$, $XII K$, $XII G$, $XII f$, $XII D$, on the one and other Side of the *equinoctial* Line, as they are on both Sides of the Line SA . And in the same Manner having found the other Points upon each Hour Line, and likewise on the Halves and Quarters, or other Lines coming from the Center, we draw by all the Points which belong to the same Sign, the Line of the Parallel of the Sign, and thus for each of them in particular. But if we have not the Intersection of the *equinoctial* Line upon the Hour Line, on which we would have the Points of the Signs, in that Case we may have always the Center of the *Dial*; but if we have not the Center of the *Dial*, we may have always the *equinoctial* Line; therefore having taken (for Example) the third Hour, on which we would have the Points of the Parallels of the Signs, and the Point R at Pleasure; and having marked $S3$ on the Line SA equal to $SIII$, which is the Distance between the Point of the *Style* S , and the Point where the third Hour propos'd, intersects the *equinoctial* Line; on that Line $S3$ for the Base, we must make the Triangle $S3r$ equal to the Triangle $SIII R$, which has $SIII$ for its Base; and draw $r3$ prolong'd, which shall intersect the Lines of the Signs in Points, which are to be transfered to the Line of the third Hour.

6. The *astronomical* Hours being drawn on the *Dial*, Fig. 26. whose Center is C , and the *Meridian* CA ; and VA the *equinoctial* Line; cE being divided into two equal Parts; to draw the *Italian* and *Babylonian* Hours upon an *horizontal* Plane, we must find on the Hour Lines the Points b , c , d , e , f , g , h , &c. of a Parallel to the *Equator*; which done, the Line $A12$ parallel to the *Equinoctial*, shall be the Line of the 12th *Italian* Hour. The straight Line $bVII$, which passes by the Point of the seventh Hour in the Morning of the *Equinoctial*, and by the Point of the first Hour Afternoon of the Parallel, shall be the Line of the 13th *Italian* Hour. The straight Line $cVIII$, which passes by the Point of the eighth Hour in the Morning on the *equinoctial* Line, and by the Point of the second Hour Afternoon of the Parallel, shall be the 14th *Italian* Hour. The straight Line dIX , which passes by the Point of nine in the Forenoon, on the *Equinoctial*, and by the Point of three in the Afternoon, on the Parallel, shall be the 15th *Italian* Hour, and thus of the rest; there being always six Hours Distance between the Hour of the *Equinoctial* and that of the Parallel.

The *Babylonian* Hours are mark'd after the same Manner, but only that which is done on one Side of the *Meridian* for the *Italian* Hours, is made on the other Side of the *Meridian* for the *Babylonian* Hours, and they are counted after another Manner; as for Example, the straight Line that passes by the Point of Mid-Day of the *Equator*, and by the Point of the sixth Hour in the Morning of the Parallel, is the sixth *Babylonian* Hour; that which passes by the first Hour Afternoon on the *Equinoctial*, and by the Point of the seventh Hour in the Morning on the Parallel, shall be the seventh *Babylonian* Hour, and thus following; so as $A12$ Parallel to the *Equator*, shall be the 12th *Babylonian* Hour for the *horizontal* *Dial*.

7. If we want to draw the *Italian* and *Babylonian* Hours, on a Plane which is not *horizontal*, Fig. 28. the

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astronomical Hours being describ'd; and the *Horizon* R H, which is one of the Hours requir'd, being drawn on the Plane of the *Dial* with the *equinoctial Line*, we must draw a Parallel to the *Equator*, *d b R e f g*, which passes by R the Interfection of the *Horizon* with any Hour Line. And seeing that the *Horizon*, which is the Line of the 24th *Italian Hour* intersects the Parallel in R, at the Point of the second Hour Afternoon, on the *equinoctial Line* at the Point of the sixth Hour Afternoon, the Line of the first *Italian Hour* shall pass by the Point *e* of the Parallel, which is the third Hour Afternoon, and by the Point of the *Equinoctial*; the Line of the second *Italian Hour* shall pass by the Point *f* of the Parallel, which is the fourth Hour, and by the Point of the eighth Hour on the *equinoctial Line*, and thus of the rest; for we must find all the Points by which the *Italian Hours* are to pass, so as the 18th *Italian Hours* may pass always by the Point of Mid-Day of the *equinoctial Line*, and by a Point of the Hour of a Parallel, which shall be so far from the Point of Mid-Day, as the Point R of the same Parallel, which is the Interfection of it with the *equinoctial Line*.

But if the Point R, by which the Parallel to the *Equator* is describ'd, was the Interfection of an Hour before Noon, we must consider, that that Parallel ought to meet also the *Horizon* in a Point of an Hour, which is so far from Noon, as is that by which we have describ'd it; for Example, if the Point R was the Interfection of nine in the Morning with the *horizontal Line*, the Parallel to the *Equator*, describ'd by the Point R, ought to meet the *horizontal Line* in the Point H, which is upon an Hour Line, so far distant from Noon as is the Point R; that is to say, that the Point H shall be the Meeting of the third Hour Afternoon with the *horizontal Line*, and the Line of the 24th *Italian Hour*, which is an occidental Portion of the *Horizon*, ought to be taken from the Point of the third Hour of the Parallel, with the Point of the sixth Hour Afternoon of the *Equator*, and in reckoning as we have done before, we shall find that the first *Italian Hour*, shall pass by the Point of the fourth Hour on the Parallel, and by the Point of the seventh Hour Afternoon on the *Equinoctial*; and that the Line of the second *Italian Hour*, shall pass by the Point of the fifth Hour of the Parallel, and by the Point of the eighth Hour of the *Equinoctial*, and so on; and we draw only those that are visible, for the others are of no Use, and serve only to count and to place those which are of no Use.

These Rules are for the *Italian Hours*, but for the *Babylonian Hours*, which have for the twenty-fourth Hour the oriental Part of the *Horizon*, if the Parallel which is describ'd by the Point R of the *Horizon*, was the Meeting of the *Horizon*, with the Line of the ninth Hour before Noon, the first *Babylonian Hour* shall pass by the Point of the tenth Hour in the Morning of the Parallel, and by the Point of the seventh Hour in the Morning on the *Equinoctial*; the Line of the second *Babylonian Hour* shall pass by the Point of eleven before Noon on the Parallel, and by the Point of eight on the *Equinoctial*, and so of the rest; and if the Point R of the Parallel, was the Point of any Afternoon Hour, we must take its Correspondent before Noon, to begin to count the *Babylonian Hours*, which is the contrary of that, which we have done for the *Italian Hours*.

8. It happens, sometimes, that the Parallel, or the *Equator*, is wanting on the Plane of the *Dial*, notwithstanding which, we may continue the Description of the *Italian* and *Babylonian Hours*; if the Point *b* be the last which is found on the Parallel, by Means of the *equinoctial Line*, and the Line *b III* be the last *Italian Hour*, which we can mark by the Help of that Parallel; that Line *b III*, shall meet with some astronomical Hour in some Point, as *m*, if we find the Points *l n o* of the Parallel which passes by *m*, and if they be on the Hour before, or after that, on which is the Point *m*; for then we continue to draw the Lines of the *Italian* or *Babylonian Hours*, by the

Points of the Hours of the Parallel *m n o*, and by the Points of the Hours of the *Equator*, in following the same Order as before, and if the *Equator* be wanting, we shall find the Points of another Parallel, by the Parallel that is given, and then we may join the Points of the Hours on the two Parallels, in following the former Order.

9. These four Hour Lines following one another, Fig. 31. viz. A *a*, B *b*, C *c*, D *d*, with the *equinoctial Line* E *f* being given, we find the other Hours, by drawing from a Point *a* taken at Pleasure, in one of the last Lines A *a*, the Line *a D* which cuts B *b* in B, and C *c* in *g*; also by the same Point *a*, having drawn *a C* which cuts B *b* in *h*, and A *b* which meets C *c* in *e*, and B *g* which meets D *d* in *d*; we prolong *e b*, *e d*, to the Points E *f* in the *equinoctial Line*; and the Hour Lines required, whereof E *e* shall be the first Hour from A *a* one Hour, and *f f* shall be two Hours from D *d*; therefore B D being prolonged to *f* in the Line *f f*, and *f d* to *b* in the Line B *b*, having drawn C *f* which cuts D *d* in *i*, *l i* prolonged shall meet the *Equinoctial* in M, by which the Hour Line M *m*, shall be between the two Hour Lines D *d*, and *f f*, and these seven Hour Lines being found, we may have all the rest by the Practice of the third Article.

Note, That there are many Cases where three Hour Lines are sufficient with the *Equinoctial* and *Horizon*; for Example, if we have three Hour Lines, Fig. 31. *a 2*, *b 3*, *c 4*, and the *equinoctial Line* 24, and *horizontal Line* *a c*, having drawn *a 4* which cuts *b 3* in *d*, and having drawn *d 2* which cuts *c 4* in *f*, drawn *c 2* which cuts *b 3* in *e*, and *e 4* which cuts *a 2* in *b*; a straight Line must pass by the three Points *f b b*, which shall meet the *Equinoctial* in the Point *g*, which is one Point of the Hour as far from *b 3*, as is the Hour Line of six: Therefore, if the Hour Line *b e*, be the fourth Hour, *a b* shall be the third, and *g i* the second; but in this Example, *b e* being the third Hour, *g i* shall be the twelfth Hour. The first Hour between 12 and 2, is found by drawing *g c* which cuts *a 2* in *k*, and *k 4* which cuts the Hour Line *g i*, which was drawn by the Point *g* to the Point *i*, and in drawing *i 2* which cuts *g b* in *n*, the Hour Line by the Point *n* shall be the first Hour.

I. We find the Foot of the *Style*, Fig. 32. which has served to draw a *Dial*, and determine the Height thereof, by supposing, first, the Line A B to be the *equinoctial Line*; and the Distance A B on the Line, to be the Interval of any six Hours; then having divided A B into two equal Parts in the Point G, from the Point G as a Center, we describe on the Diameter A B, the Circle A S B *d f*, and mark the Points L and *f*, which divide the Semicircle into two equal Parts: A *f*, *f D* and D B, are each the Interval of two Hours on the *equinoctial Line*; the Lines *d D*, *f f*, ought to meet the Circumference of the Circle at the Point S, and the like S E P drawn perpendicular to the *equinoctial Line* shall be the *Substyle*. If we have C the Center of the *Dial*, having describ'd on the Diameter C E, the Semicircle C Z E, and having drawn in it the Line E Z equal to E S; Z P being drawn perpendicular to the *substyle* Line E P, and meeting it at the Point P, that Point shall be the Foot of the *Style*, whereof P Z shall be the Height. But if we have not the Center of the *Dial*, having drawn *a e* parallel to the *Equinoctial*, and from the Point *a* draw *a S* parallel to A S, which meets the *substyle* Line in S, from the Point *e* as a Center, and Semiciameter S, we'll describe the Arch *x*, and draw the straight Line *x z*, which shall determine the Inclination of the *Axis* to the *substyle* Line, and having drawn E *z* perpendicular to *x z* from the Point E, and from the Point *z*, the straight Line *z P* perpendicular to the *substyle* Line E P, the Point P shall be the Foot of the *Style*, whereof P Z shall be the Height.

II. If we would have the Hours shewn only by the Shadow of the Point of the Style, we must make, and place it after such a Manner, as may serve without changing it; and though we can give it various Forms, the best is to make it waved to the End, that the Shadow thereof may not unite with the Hour Lines in any Place, and that we may always know, that it is only the Shadow of the Point that serves to shew the Hours. But if we would have a Portion of the *Axis* to shew the Hours, and that the *Axis* be represented by an Iron Rod, the Style we have placed ought to have the Point very small, that it may enter into a little Hole made in the Rod, so as the Point of the Style, may exactly answer to the Middle of the Thickness of the Rod; the Style may remain if we would have it to support the *Axis*; but if the *Axis* be not very long, and if it be strong enough to sustain itself alone, being fastened at one End, we may take away the Style when the *Axis* is fix'd on the Surface of the *Dial*. We may do the same, if we fasten to the End of the Style a Point of an Iron Wire, which there may be very small, and take but half the Thickness of the Rod, so as the *Dial* being drawn to that Point, there remains nothing to be done, but to take it away to place the *Axis*, the Middle of the Thickness whereof ought to answer to that Point; therefore, whether the Style remains to uphold the *Axis*, or whether we take it away when the *Axis* is fix'd in its Place, we must fasten it to the End of the Style to stay it, which ought to answer to the Center of the *Dial*, if it has any.

The Rod which serves for the *Axis*, may be made as mark'd in the Figure, so as the Hole signified by A, Fig. 33. can be made to lodge the Point of the Style; and that it may be let in as far as the Middle of the Thickness of the Rod, the Point B, which answers also to the Middle of the Rod, ought to be applied exactly to the Center of the *Dial*: This Rod being thus stay'd at the Point B, and at the Point A, we must fasten the Foot on the Plane of the *Dial*. But if we would not have a Foot to the *Axis*, as G, and that we would only fix the Rod to the Center of the *Dial*, we must draw various Lines, which may pass by the Center of the *Dial*, and stay the Rod on the Point of the Style A, so that the End may enter in a Hole made in the Plane of the *Dial*, at the Place of the Center, and be divided by the Middle of its Thickness, by each Line that passes by the Center.

If we make use of a thin Plate, cut according to the Inclination of the *Axis* with the *substylar Line*; it must be set perpendicularly on the Plane of the *Dial*, in applying one of its Sides to the *substylar Line*, and the other Line passing by the Point of the Style shall serve for the *Axis*.

Thus far we have instructed our Pupils who design to make some Progress in the *Art of Dialling*, in all the general and particular Rules belonging to that Art; and thereby rendered them capable to draw all the different Lines which compose a *Sun-Dial*. I propose no particular Construction on the horizontal and vertical Planes, which only gives particular Rules for each Case; and which, in the ordinary Way happens very seldom; therefore these Methods are for all Sorts of Planes indifferently considered. I know very well that there are various Cases where we might find Abridgments, but these Abridgments consist only in certain Lines and Points, which come to be united in the general Practices which I have given here.

Dials are also drawn by *Reflexion*, in making Use of a small Piece of polish'd Metal, very even and flat; of a round Form, and of about an eighth Part of an Inch in Diameter, and having placed and fastened it in a stable Place, we mark the Points of Light on the Plane where we design to draw the *Dial*, which serve instead of the Points of Shadow; the Middle of the Mirror or Glass, ought to be considered as the Point of a Style, whereof we find the Foot in drawing from the Middle of the Glass, a Line perpendicular to the Plane of the *Dial*; the Point where this Line meets with the Plane of the *Dial*, shall be the Foot of the Style. We may find the *substylar Line*, the *equino-*

tial Line, the Center of the *Dial* and *Meridian*, by the Practices where we make no Use of the *horizontal Line*, nor of the Height of the Pole.

Having found the *equinoctial Line*, and the Point where the *meridian Line* intersects it, we draw the Hours, following the Methods heretefore describ'd.

Note, That if the Inclination of the Glass be never so little chang'd, it will cause a considerable Alteration in the *Dial*; therefore this Sort of *Dials*, seldom lasts many Years in good Condition; but there always happens some Alteration to the Wall on which they are fix'd. But if in the Place of the Glass, we fill some small Vessel, either of Glass or Potter's Earth, of about an Inch in Diameter, with Water or Quick-Silver, that Vessel being put upon a Place mark'd on some *Transum* of a Window, or the like, shall give the Hours on the *Dial*.

Besides *Sun-Dials*, there is a *Nocturnal*, or *Night-Dial*, which shews the Hours of the Night; of this there are two Kinds, *Lunar* and *Sidereal*.

The *MOON-DIAL*, or *LUNAR-DIAL*, is that which shews the Hours of the Night, by Means of the Light or Shadow of the Moon, projected thereon from an Index.

To describe a *MOON-DIAL*, suppose, *e. g.* a *horizontal Moon-Dial*; there must be drawn first a *horizontal Sun-Dial*, then two Perpendiculars erected to the Line of 12 o'Clock, and dividing the Interval into 12 equal Parts, through the several Points of Division, there must be drawn Lines parallel thereto. Now appropriating the first Line to the Day of the New-Moon, and the second, to the Day when the Moon comes an Hour later to the *Meridian* than the Sun; their Intersections with the Hour-Lines will give Points, through which draw a curve Line 12 12, for the *meridian Line* of the Moon. After the like Manner are determined the Hour-Lines 1 1, 2 2, 3 3, &c. which the Shadow of the Moon, projected from the Style of the *Dial*, intersects at the respective Hours. We must blot out the Hour Lines of the *Sun-Dial*, together with the Perpendiculars, whereby the *Lunar-Hours* were drawn, and divide the Interval by other parallel Lines into 15 equal Parts, answering to the 15 Days between New and Full-Moon. Lastly, to these Lines we must write the several Days of the Moon's Age. Now the Moon's Age being learned from our *Calendar*; the Intersection of the Line of the Moon's Age, with the *Lunar Hour-Lines*, will give the Hour of the Night.

We draw a *portable Moon-Dial*, by describing a Circle on a Plane that may be rais'd according to the Elevation of the *Equator*, and dividing its Circumference into 29 equal Parts. From the same Center we describe another moveable Circle, which we divide into 24 equal Parts, or Hours. In the Center we erect an Index, as for an *equinoctial Dial*. This *Dial* being daily placed after the Manner of an *equinoctial Dial*, and the 12 o'Clock Line brought to the Line of the Moon's Age: The Shadow of the Index will give the Hour.

To find the Hour of the Night by a *Sun-Dial*, we observe the Hour which the Shadow of the Index points at by Moon-Light; find the Moon's Age in the *Calendar*, and multiply the Number of the Days by three-fourths, the Product is the Number of Hours, to be added by the Hours shewn by the Shadow, to give the Hour requir'd.

There are also *Ring-Dials*, and *quadrantal-Dials*.

A *RING-DIAL*, is a Kind of *Dial* usually small and portable, consisting of a Brass-Ring, or Rim, seldom exceeding two Inches in Diameter, and one Third of an Inch in Breadth. In a Point of this Rim is a Hole, through which the Sun-Beams being received, make a lucid Speck on the Concavity of the opposite Semi-circle, which gives the Hour of the Day in the Divisions marked therein; but it only holds Good about the Time of the *Equinox*. To have the *Dial* perform throughout the whole Year, the Hole is made moveable; and the Signs of the *Zodiack*, or the Days of the

the Month are mark'd on the convex Side of the Ring, by Means whereof, the *Dial* is rectified for the Time. To use it, put the moveable Hole to the Day of the Month, or the Degree of the *Zodiack* the Sun is in; then suspending it by the little Ring, turn it towards the Sun, till his Rays, as before, point out the Hour among the Divisions on the Inside.

An *universal* or *astronomical Ring-Dial*, is a *Ring-Dial* which serves to find the Hour of the Day in any Part of the Earth; whereas the former is confin'd to a certain Latitude. It consists of two Rings, or flat Circles, from two to six Inches in Diameter; and their Breadth, &c. proportionable. The outward Ring represents the *Meridian* of any Place you are at; and contains two Divisions of 90 Degrees each, diametrically opposite to one another; serving, the one from the *Equator* to the North, the other to the South Pole. The inner Ring represents the *Equator*, and turns exactly within the outer, by Means of two Pivots in each Ring at the Hour of 12. Across the two Circles, goes a thin Riglet or Bridge, with a Curfor, that slides along the Middle of the Bridge. In the Curfor is a little Hole for the Sun to shine through. The Middle of this Bridge is conceived as the *Axis* of the World, and the Extremities as the Poles; and on the one Side are drawn the Signs of the *Zodiack*, and on the other, the Days of the Month. In the Edge of the *Meridian* slides a Piece, to which is fitted a Ring to suspend the Instrument by.

To use this *universal Ring-Dial*, we must place the Line which is on the Middle of the sliding Piece, over the Degree of Latitude of the Place (for Example 51 Degrees for *London*) and put the Line which crosses the Hole of the Curfor to the Degree of the Sign, or Day of the Month. Then we open the Instrument, so as the two Rings be at right Angles to each other, and suspend it by the Rings, that the *Axis* of the *Dial*, represented by the Middle of the Bridge, may be parallel to the *Axis* of the World. Afterwards we turn the flat Side of the Bridge towards the Sun, so as his Rays striking through the little Hole in the Middle of the Curfor, fall exactly on a Line drawn round the Middle of the concave Surface of the inner Ring; in which Case, the bright Spot shews the Hour of the Day in the said concave Surface of the Ring.

Note, That the Hour of 12 is not shewn by this *Dial*, by Reason the outer Circle being then in the Plane of the *Meridian*, hinders the Sun's Rays from falling on the inner Circle; nor will this *Dial* shew the Hour when the Sun is in the *Equinoctial*, by Reason his Rays, then, fall parallel to the Plane of the inner Circle.

QUADRANTAL-DIAL, or *horodistical Quadrant*, is a pretty commodious Instrument, thus called from its Use in telling the Hour of the Day. Its Construction is so simple and easy, and its Application so ready, that we shall describe it both for the Use of some who may want other Conveniencies, especially Authors, who are seldom rich enough to purchase a Watch.

We first make a *Quadrant*, and from the Center of that *Quadrant*, whose Limb is divided into 90 Degrees, we describe seven concentrick Circles at Intervals at Pleasure, and to these add the Signs of the *Zodiack*, in the Order they are represented in the Scheme. Secondly, applying a Ruler to the Centre and the Limb, we mark upon the several Parallels, the Degrees corresponding to the Altitude of the Sun when therein, for the given Hours; we connect the Points belonging to the same Hour with a curve Line, to which we add the Number of the Hour. We fit a Couple of Sights to the *Radius* and tie a Thread with a Plummet to the Center of the *Quadrant*, and upon the Thread a Bead to slide.

If now the Bead be brought to the Parallel wherein the Sun is, and the *Quadrant* directed to the Sun till a visual Ray passes through the Sight, the Bead will shew the Hour; for the Plummet in this Situation cuts all the Parallels in the Degrees corresponding to the Sun's Altitude: Since, then, the Bead is in the

Parallel which the Sun then describes; and thro' the Degrees of Altitude to which the Sun is elevated every Hour, there pass Hour-Lines; the Bead must shew the present Hour.—Some Persons, who are not mighty nice, represent the Hour-Lines by Arches of a Circle, or even by streight Lines; and that without any sensible Error.

There is also a Method of making a *Dial* upon the Fingers and the Hand, which is done thus: Take a Straw, or such like Thing, of the Length of the *Index*, or second Finger; hold this Straw very right between the Thumb and the Forefinger, then stretch forth the Hand, and turn your Back and the Palm of the Hand towards the Sun, so that the Shadow of the Muscle, which is under the Thumb, touch the Line of Life, which is between the Middle of the two other great Lines, which is seen in the Palm of the Hand; this done, the End of the Shadow will shew what a Clock it is; for at the End of the first Finger it is Seven in the Morning or Five in the Evening; at the End of the Ring-Finger it is Eight in the Morning, or Four in the Evening; at the End of the little Finger or first Joint, it is Nine in the Morning, or Three in the Afternoon; Ten and Two at the second Joint; Eleven and One at the third Joint, and Mid-day in the End following, which comes from the End of the *Index*.

The Antiquity of *Dials* is beyond Doubt: Some attribute their Invention to *Anaximenes Milesius*; and others to *Thales*. *Vitruvius* mentions one made by the antient *Chaldee* Historian *Berosus*, on a reclining Plane, almost parallel to the Equinoctial. *Aristarchus Samius* invented the hemispherical *Dial*. And there were some spherical ones with a Needle for a Gnomon. The Discus of *Aristarchus* was an horizontal *Dial*, with its Limb rais'd up all around, to prevent the Shadow stretching too far: But it was late ere the *Romans* became acquainted with *Dials*. The first Sun *Dial* at *Rome* was set up by *Papyrius Curfor*, about the Year of the City 460, before which Time, says *Pliny*, there is no Mention of any Account of Time, but by the Sun's rising and setting; it was set up at or near the Temple of *Quirinus*, but went ill: About 30 Years after, *M. Valerius Messala* being Consul, brought out of *Sicily* another *Dial*, which he set up on a Pillar near the *Rostrum*; but for Want of its being made for that Latitude, it could not go true. They made use of it 99 Years, till *Martius Philippus* set up another more exact.

But there seem to have been *Dials* among the *Jews* much earlier than any of these. Witness the *Dial* of *Abaz*, who began to reign 400 Years before *Alexander*, and within 12 Years of the Building of *Rome*.

The first professed Writer on *Dialling*, is *Clavius*, who demonstrates all, both the Theory and the Operations, after the rigid Manner of the antient Mathematicians; but so intricately, that no Body, we dare say, ever read them all. *Dechales* and *Ozanam*, give much easier in their *Courses*, and *Wolffius* in his *Elements*. *M. Picard* has given a new Method of making large *Dials*, by calculating the Hour-lines; and *M. de la Hire*, in his *Dialling*, printed in 1683, a Geometrical Method of drawing Hour-lines, from certain Points determined by Observation. *Eberhardus Welperus*, in 1625, published his *Dialling*, wherein he lays down a Method of drawing the primary *Dials* on a very easy Foundation: The same Foundation is described at length by *Sebastian Munster*, in his *Rudimenta Mathematica*, published in 1551. *Sturmius* in 1672, published a new Edition of *Welperus's Dialling*, with the Addition of a whole second Part, about inclining and declining *Dials*, &c. In 1708, the same Work with *Sturmius's* Additions, was republith'd with the Addition of a fourth Part, containing *Picard's* and *de la Hire's* Methods of drawing large *Dials*, which makes much the best and fullest Book on the Subject. *Peterfon*, *Michael*, and *Muller*, have each wrote on *Dialling*, in the German Tongue; *Caetsius* in his *Horologiographia Plana*, printed in 1689; *Ganeppenius*, in his *Gnomonica Mechanica*, and *Bion*, in his *Use of Mathematical Instruments*.

Note,

Note. That as *Distillation*, is a Branch of *Chymistry*, of which I have given an ample Method, and very well circumstanced; in that Treatise; I think it needless to take any farther Notice of it under this Letter

Do, since it contains nothing else but a Repetition of what I have said already, which I design to avoid as much as possible.

D I V I N G.

DI V I N G, is the Art, or Act of descending softly under Water, to a considerable Depth, and abiding there some considerable Time.

This Art owes its first Invention to Avarice and Greediness of Gain, since it is chiefly practised upon Wrecks, to recover the Riches which the Sea has swallowed, which could never have been done, without some Contrivances had been found, to furnish the *Diver* with fresh Air, without which, he must either make a very short Stay under Water, or perish. Several Machines have been contrived for that Purpose, viz. *double flexible Pipes*, to circulate the Air down into a Cavity inclosing the *Diver*; *Diving-Bells* of different Forms, &c.

The *double flexible Pipes*, were made, one to receive the Air, which was forced into it with Bellows, and the other, to expel the Air, so that the first did the Office of *Inspiration*, and the last that of *Expiration*. Those two Pipes were adapted to a Cavity which encompass'd the *Diver*, like an Armour, and whose Office, was, not only to circulate the Air, but likewise, to protect him against the two violent Pressures of the Water, which otherwise, would infallibly obstruct the Dilatation of the Thorax, and consequently intercept the Respiration.

But as this Machine was not made to cover all the Limbs, but on the contrary, left some of them bare; and it being made tight with Leather, at the Junctures, it was subject to several Inconveniencies, and expos'd the *Diver* to some very imminent Dangers, especially if he was let down deeper than three Fathoms of Water; for then the Water embracing too closely the naked Limbs, and pressing too strongly upon the Junctures, hinder'd the Dilatation of the Vessels, and thereby obstructed the Circulation of the Blood; add to this, that if the several Pieces which compos'd that Machine, were not joined very close together, so as to leave the least Vacancy, the Water would have rushed in, and instantly fill'd the whole Machine, to the great Danger of the *Diver's* Life.

To remedy those great Inconveniencies, another Machine was invented, called a *Diving-Bell*, made in Form of a truncated Cone, the smaller Base whereof is clos'd, and the larger open. This *Bell* must be poiz'd with Lead, and so suspended, that it may sink full of Air with its open Basis downwards, and as near as may be, in a Situation parallel to the Horizon, so as to close with the Surface of the Water all at once. In this the *Diver* is conveyed to any reasonable Depth, and sinks down, setting, with the Air included; and if the Cavity of the Vessel can contain a Tun of Air, a single Man may remain a full Hour, at five or six Fathoms deep, without much Inconvenience. But the lower he goes, still the included Air contracts itself, according to the Weight of the Water that compresses it; so as at thirty three Feet deep, the *Bell* becomes half full of Water; the Pressure of the incumbent Air being then equal to that of the Atmosphere, and at all other Depths the Space occupied by the compressed Air in the upper Part of the *Bell*, will be to the under Space of its Capacity fill'd with Water; as thirty three Feet to the Depth of the Surface of the Water in the *Bell* below the common Surface thereof. And this condensed Air being taken in with the Breath, soon insinuates itself into all the Cavities of the Body, and has no ill Effect, provided the *Bell* be permitted to descend so slowly, as to allow Time for that Purpose.

This Machine is not, however, without its Incon-

venience, which is found in the Ears, within which there are Cavities which open only outwards, and that by Pores so small, as not to give Admission even to the Air itself, unless they be dilated and distended by a considerable Force. Hence on the first Descent of the *Bell*, a Pressure begins to be felt on each Ear, which by Degrees grows painful, till the Force overcoming the Obstacle, what constringes these Pores; yields to the Pressure, and by letting some condensed Air slip in, gives immediate Ease, though the Pain is renewed when the *Bell* descends lower; which Pain is again eas'd in the same Manner as before.

The celebrated Dr. *Halley*, to obviate these Inconveniencies, contrived some further Apparatus, whereby not only to recruit and refresh the Air, from Time to Time, but also to keep the Water wholly out of it at any Depth, which he effected in this Manner: His *Diving-Bell* was of Wood, about sixty cubick Feet in its Concavity, coated externally with Lead so heavy that it would sink empty; a particular Weight being distributed about its Bottom, to make it descend perpendicularly, and no otherwise. In the Top was fixed a Glass like a Window, to let in Light from above, with a Cock to let out the hot Air: And below, about a Yard under the *Bell*, was a Stage suspended from it by three Ropes, each charg'd with an hundred Weight to keep it steady. To supply Air to this *Bell* when under Water, he had a Couple of Barrels holding thirty-six Gallons a-piece, cased with Lead so as to sink empty, each having a Bung-Hole at Bottom to let in the Air as they descended, and let it out again as they were drawn up. In the Top of the Barrel was another Hole, to which was fix'd a leathern Pipe, or Nose long enough to hang below the Bung-Hole; being kept down by a Weight appended. So that the Air driven to the upper Part of the Barrel by the Encroachment of the Water, in the Descent, could not escape up this Pipe, unless the lower End was lifted up.

These Air-Barrels were fitted with Tackle, to make them rise and fall alternately, like two Buckets; being directed in their Descent by Lines fastened to the under Edge of the *Bell*; so that they come readily to the Hand of a Man, placed on the Stage to receive them; and who taking up the Ends of the Pipes, as soon as they come above the Surface of the Air in the Barrels, all the Air inclosed in the Surface thereof, was blown forcibly into the *Bell*, the Water taking its Place. One Barrel thus receiv'd and emptied, upon a Signal given it was drawn up, and at the same Time the other let down; by which alternate Succession, fresh Air was furnish'd so plentifully, that the learned Doctor himself was one of five, who were altogether in 9 or 10 Fathoms deep of Water, for about an Hour and a half, without the least Inconvenience; the whole Cavity of the *Bell* being perfectly dry. All the Precaution he observed, was to be let down gradually, about twelve Foot at a Time, and then to stop, and drive out the Water that had enter'd by taking in four or five Barrels of fresh Air before he descended farther. And being arriv'd at the Depth intended, he let out as much of the hot Air that had been breathed, as each Barrel would replace with cold, by Means of the Cock at the Top of the *Bell*; through whose Aperture, though very small, the Air would rush with so much Impetuosity, as to make the Surface of the Sea boil.

Thus he found any Thing could be done, that was requir'd to be done underneath; and by taking off the Stage, he could for a Space as wide as the Circuit of the

the *Bell*, lay the Bottom of the Sea so far dry, as not to be over Shoes therein. Besides, that by the Glass Window so much Light was transmitted, that, when the Sea was clear, and especially when the Sun shone, he could see perfectly well to write or read, much more to fasten or lay hold of any Thing under him, that was to be taken up. And by the Return of the Air Barrels, he often sent up Orders written with an Iron Pen on a Plate of Lead, directing how he would be moved from Place to Place. At other Times, when the Water was troubled and thick, it would be as dark as Night below; but in such Cases he was able to keep a Candle burning in the *Bell*. The same Author intimates, that, by an additional Contrivance, he has found it practicable for a *Diver* to go out of the *Bell*, to a good Distance from it, the Air being conveyed to him in a continued Stream of small flexible Pipes, which serve him as a Clue to direct him back again to the *Bell*: So that there seems little farther wanting to the Perfection of *Diving*: Though the famous *Corn. Drebell* had an Expedient, in some Measure, superior to this. He contrived not only a Vessel to be rowed under Water, but also a Liquor to be carried in the Vessel, which supplied the Place of fresh Air. The Vessel was made for King *James I.* carrying twelve Rowers, besides the Passengers. It was tried in the River *Thames*; and one of the Persons in that submarine Navigation, then living, told it one from whom Mr. *Boyle* had the Relation; who assures us, that he discovered by a Physician, who married *Drebell's* Daughter, that the Liquor was used from Time to Time, when the Air in the submarine Boat was clogged by the Breath of the Company, and unfit for Respiration; at which Time, by unstopping the Vessel full of this Liquor, he could speedily restore to the troubled Air such a Proportion of vital Parts, as would make it serve again a good while. The Secret of this Liquor *Drebell* would never disclose to above one Person, who himself assured Mr. *Boyle* what it was.

That there can be such a Liquor found, is without Contradiction; but that it operates, as abovementioned by Mr. *Boyle*, is what appears to me ridiculous; for in my Opinion, it is absolutely impossible to invent a Composition, which could be carried to that Degree of Perfection, as to supply the Want of the Air we breathe, and to be applied to the same Uses in an organical Body, viz. in tempering the too great Impetuosity of the Spirits, hindering or moderating the too great Effervescency of the Humours, which enter into the Composition of the Mass of the Blood, and hinders it from becoming a Dust, &c. much less to supply it with vital Spirits, as Mr. *Chambers* ignorantly supposes; which vital Spirits are not carried by the Air into the Body, but are formed in the Body by the Concomitancy of the Air; which serves, only, in that Operation, as a Refrigeratory does to an Alembick; i. e. to hinder that the Exaltation of those Spirits from the Mass of the Blood, should be made with too much Precipitation: Therefore must have been invented by *Drebell*, for no other Purpose than to rarify, in his submarine Boat, the Air which had been condensed, and clogged by the Breath of the Company; which Rarefaction unfolding the ætherial Particles from the fuliginous Envelopes they had wrapt themselves in, in passing and repassing through the Lungs, hindering the Inspiration and Expiration, restored them to their native Activity, and rendered

them fit for the same Uses as before: Which Rarefaction could not be done but by Fire, either natural or artificial; and which makes me suppose, that *Drebell's* Liquor was nothing else but a spirituous Preparation full of igneous Particles, which rushing with Impetuosity out of the Vessel, when opened, into the thick and clogged Atmosphere, where by their excessive Rapidity, and continual Rotation, shaking, disuniting, and even breaking the heaviest Corpuscles it was composed of, and which clogged the ætherial ones, rarified that Atmosphere so as to be as easily breathed as before; which Operation (which is the same as that of the Sun on our natural Atmosphere) could be repeated, as long as the Liquor in the Vessel could supply the Boat with igneous Particles: Therefore I would be apt to imagine, that *Drebell's* Liquor was nothing more than Spirit of Nitre rectified in an extraordinary Manner; whose igneous Vapours could not be offensive to the Company in the Boat, since seized at their first sallying out by that thick ambient Atmosphere.

Before the Invention of these useful and curious Machines, which serve to keep the *Diver* a considerable Time under Water, and carry him to a very great Depth, *Diving* was more dangerous, and not near so beneficial, as it has proved since; but as the *Diver* could not be kept long under Water, and did not dare to venture so far, none but Trifles could be dived for; but at present, the heaviest Things are brought up from the Bottom of the Sea, such as Cannon, Chests of Gold and Silver, which by Means of those Machines a *Diver* has Time to rummage a Wreck for; though a Ship has been wrecked, perhaps, since a whole Century, or more: Which, to accomplish, the Undertaker for *Diving* must know perfectly well the Place, where the Ship he designs to dive upon was wrecked, otherwise he must expect to lose his Time, and to spend his Money in vain: Though with all the Precautions imaginable, *Divers* have often been disappointed; which is the Reason, perhaps, why the Art of *Diving* is so neglected at present, that we hear of none who apply themselves to it. I knew ten or twelve Years ago one Mr. *Row*, who was very expert in that Art, and who had dived on several Wrecks on the Coasts of *England* and *Scotland*, with very great Success.

Those who dive for Sponges in the *Mediterranean*, do not use so much Precaution, and help themselves by carrying down Sponges dipt in Oil in their Mouths. But considering the small Quantity of Air that can be contained in the Pores of a Sponge, and how much that little will be contracted by the Pressure of the incumbent Air, such a Supply cannot long subsist the *Diver*. For it is found by Experiment that a Gallon of Air included in a Bladder, and by a Pipe reciprocally inspired and expired by the Lungs, becomes unfit for Respiration in little more than one Minute of Time; for tho' its Elasticity be but little altered in passing the Lungs, yet it loses so much of it as to be rendered effete: For Dr. *Halley* assures us this, that a naked *Diver* without a Sponge, cannot remain above a couple of Minutes inclosed in Water; nor much longer with one, without suffocating; nor without long Practice, near so long: Ordinary Persons beginning to stifle in about half a Minute. Besides that, if the Depth be considerable, the Pressure of the Water on the Vessels make the Eyes Blood-shorten, and frequently occasions a Spitting of Blood.

D O N A T I S T S.

DONATISTS, thus denominated from their Leader *Donatus*, Bishop of *Casae Nigræ*, begun in 311 by a Schism, occasioned by *Donatus* having ordained *Majorinus* in the room of *Cæcilian*, who had been elected Bishop of *Carthage*. But as Schism leads

naturally into Heresy; *Donatus* had so sound Means to unite those two inseparable Companions in his Person, by publishing and maintaining obstinately several Errors, viz. 1. That Baptism conferred out of the Church, that is, out of the Sect, was null. 2. That there

there was no Church but in *Africa*, considering all the other Churches as prostitute and fallen. *Donatus* is accused besides to have given into the Doctrine of the *Arians*, with whom he was closely allied; and accordingly *St. Epiphanius*, *Theodoret* and some others accuse the *Donatists* of Arianism. But *St. Augustin* Epist. 85, to Count *Boniface*, affirms that the *Donatists* in this Point, kept clear of the Errors of their Leader. They were condemned in a Council held at *Rome* two Years after their Separation, and afterwards in another at *Arles* the Year following.

In 344, under the Empire of *Theodosius the Great*, there arose a Schism among the *Donatists* themselves, by which they were broke into two Parties, for *Parmenian* their Bishop being dead, some elected *Primian*, and were called *Primianists*; and others *Maximian*, called *Maximianists*.

Aurelius, Bishop of *Carthage*, assembled several Councils in the Beginning of the fifth Century, to procure a Re-union between them and the Orthodox, but when he found that instead of being persuaded by his charitable Sollicitations, they, on the contrary, grew more insolent and more furious, the Emperor *Honorius*, at the Instances of the *African* Bishops, published several very severe Ordinances against them, which contributed more to their Return to the Church, than all the Councils which had been assembled for the same Purpose; though those Ordinances inflicted no corporal Punishments against the *Donatists*, but only deprived them of all the Honours they were possessed of, and rendered them incapable of being promoted to any others; which shews that the properest Means to exterminate Heresy and Schism, is not to force the Hereticks in their Belief; in which the Authority of Princes, and Torments render them more obstinate, and even serve to give them more Credit among the People: But that the Privation of publick Honours, and the Incapacity of enjoying the Benefits of a Civil Society, conquer sooner those who are more sensible to the Advantages of this transitory Life than to Religion. Since *Augustin* who had, till then, been of Opinion, that no other Arms ought to have been employed against them but those of the divine Word, found, by the good Effects of those Laws we mention, that he had been mistaken on that Article. He wrote on that Subject an excellent Letter to *Vincent* who was a *Donatist*; where he shews, 'that it would be returning Evil for Evil, if the Catholicks were not to endeavour to keep in Awe through Fear, those by whom they have been so barbarously used, and who cannot be hindered from continuing their Violences, but by the Menaces of Princes. That Fear must be joined to Instruction; because if the Hereticks were only frightened without being instructed, it would be a Tyranny, and not a salutary Conduct for their Salvation; that all those who forgive, are not true Friends; as those that wound are not always Enemies; and that it is better to love with Severity than to deceive with Meekness; that God not only instructs us with Benignity, but frightens us likewise, with Menaces: Lastly, that several are only kept in *Donatus's* Schism, either through Shame, or by Custom, or by the Violence of their Brethren; and that the imperial Laws remedy all those Excuses, by the Terror of the Pains which awake those who are asleep, and halten those who are loth to desert a Party.'

Among the *Donatists*, whom those Laws could not persuade to abandon their Schism, several carrying Things to Extremity, took Arms against the Orthodox, and exercis'd on those they could seize, all the Cruelties their Rage could devise. The most modest among them contented themselves with complaining, that the Orthodox had claimed the Authority of the Emperor, in an Affair purely of Religion; to which *St. Augustin* answered as above related.

In 408, the Emperor *Honorius*, was obliged to renew those Laws he had made against the *Donatists*, by Rescripts dated the 15th of *November*; because after the Death of *Stylicon*, those Hereticks having given

out that he had been the Author of the Laws made against them under the Name of *Honorius*, they had lost their Force as soon as *Stylicon* had lost his Life, and in hope of Impunity, they attacked the Catholicks, and even killed several Bishops.

In 410, was held by the Emperor's Orders, that famous Conference, between the Orthodox and the *Donatists*, where the Tribune *Marcellinus*, who was also imperial Notary or Secretary of State presided for the Emperor. *Marcellinus* was a very prudent and very learned Man, who desired sincerely to see Peace restored in the *African* Churches. This Magistrate shewed in the Conference we mention, as much Sufficiency to answer to the Evasions of the *Donatists*, as Sincerity and Mansuetude to bring them to Reason; for as they had entered the Conference, entirely against their Inclination, they used all the Chicaneries they could devise to avoid the Dispute; so that any body but this Tribune could have been deceived by their Subtilties, or at least disconcerted by their Obstinacy to find always some Back-door, or Means to escape. The reading of those impertinent Cavillations is too tedious in the Acts; therefore as I imagine they would be but very little entertaining for the Reader, I will not relate them. It was necessary to write all that was laid on their Part, to shew their Want of Sincerity; and *St. Augustin* judging that few Persons would take the Trouble to read Things so long and so tedious, has made an Abridgment of them, which is found among his Works.

This famous Conference was opened the first of *June* 411, the Year which followed the taking of *Rome* by the *Goths*. Under the Consulship of *Varanes* or *Varro*, or *Varanus*, for that Name is read these three Ways in the Manuscripts of the Acts of the Conference, which was held in the Baths of *Gargilius*, one of the most magnificent Edifices of *Carthage*. There were come to *Carthage* on the Side of the Orthodox 286 Bishops, and on that of the *Donatists* 279, according to the Subscription, but in fact there were not so many, and those present signed for the absent: For if that great Number had been admitted in the Conference, and had voted, a Disorder had been unavoidable; and 'the Disputes of important Questions, which wants Silence, ought not to be disturbed, said the Tribune *Marcellinus*, by a confus'd Multitude of Laicks, or Bishops.' Therefore according to the Emperor's Will, it was determined, after a long and tedious Opposition from the Schismaticks, that seven Bishops should be elected of each Side, to enter the Place of the Conference, and to dispute; besides whom, there would be the like Number of them, to consult together about the Difficulties, which the Disputants would not resolve alone. The Orthodox Bishops were *Aurelius* of *Carthage*, *Alipius* of *Tagestes*, *Augustin* of *Hippone*, *Vincent* of *Colusia*, *Fortunatus* of *Cirtbe*, *Fortunatian* of *Sicca*, and *Possidius* of *Calamis*. The *Donatists* were *Primian*, *Petilian*, *Enteritus*, *Potastus*, *Montanus*, *Gaudencius*, and *Deodatus*. *St. Augustin* was the principal, not to say the only Actor in that Dispute; and *Petilian*, false Bishop of *Cirtbe* was opposed to him. Eight Bishops, four of each Church, were elected to write and keep the Acts of the Conference. All these Persons made together 36 in Number. Before they begun, *Marcellinus* obliged all the Prelates to sign a Promise, by which they engaged themselves to rectify all that would be granted by those of their Party. The *Maximianists* wanted to enter the Conference, and thereby render themselves considerable to the other *Donatists* who despised them, because of their small Number; but both Parties agreed that they should be excluded; because it appeared clearly that they desired it rather to acquire some Reputation, by their having been admitted in so celebrated a Conference, than they were afraid of being conquered; that they had sought less the Honour of the Victory than that of the Fight; and less the Triumph of the Truth, than the Consolation of having hid their Weakness. *Marcellinus* invited the schismatick Bishops to set down, but they refused it in

a scornful Manner, saying, that it was written by *David*, *I'll not set with the Impious*. But they did not consider, that in wanting to stand, they were in the Posture of Criminals before their Judges. They also found Fault with the Orthodox calling them Brothers, which was shewing too much the implacable Rage wherewith they were animated against them; and little deserving that handsome and tender Usage they received from them; for the Desire of the Re-union was so great and so sincere among the Orthodox, that they offered to quit their Bishopricks, if they were convicted of some Errors; and if not, and they were Conquerors, to divide their Sees with those who had lost their Cause, and to suffer two Bishops in one Diocese. They even carried their Christian Complaisance further; for in their Letter to *Marcellinus* they proposed even to quit their Dioceses, if the People would not suffer two Bishops. To which Proposal *St. Augustin* relates, that all the Orthodox Bishops, except two, at first, who afterwards agreed with the rest, consented.

To come sooner at the true Subject of the Dispute, the orthodox Bishops would have separated from the common Cause of the Church, which was the Point in Question, the Affair of *Cecilianus*, who had given Birth to the Schism. The *Donatist* Bishops, on the contrary, endeavoured to avoid the Question of the true Church; if she was on their Side, or on that of the Catholics; but amused themselves a considerable Time, on the particular Fact of that Prelate. As the Orthodox had asked this Conference of the Emperor, the Schismatics wanted that at the Beginning of the Dispute, the Names of the Deputies should be given to them, and their Request shewn. The Tribune answered, that it was not the Custom to insert Requests in the Rescripts of the Prince, of the Nature of that in Question; that when a Council was alledged, with the Date of the Day, and of the Consulship under which it had been assembled, they accused it, thereby, of Supposition; and that when an Ordinance of the Emperor, without Date of the Day, or of the Consulship, was opposed to them, they said, that such Ordinance was false. *Marcellinus* added, that *that* Formality was not necessary in the imperial Constitutions, as it was in other Rescripts. At last, after all these Subterfuges, they were oblig'd to come to the principal Question, *viz.* on which Side was the true Church? *Petilianus* shewed, that he was a very bad Advocate of a very bad Cause; and *St. Augustin*, on the contrary, shew'd so solid a Doctrine, and such marvellous Strength of Genius, though often interrupted, that he left no Room to doubt which Side gained the Victory. He could have reproached his Adversary with smelling a little of *Arianism*, and attacked him, besides, on the Reiteration of the Baptism. But contented himself with insisting on the Point more clearly controverted, and to defend the Unity of the Body of *Jesus Christ*, which the *Donatists* had broken by their Schism. The sacred Scripture was chosen by both Parties, for Judge of that Dispute, and *St. Augustin* made so good Use of those Arms, that his Adversaries could not resist them.

The Question was more of Fact, than of Right, and for that Reason there was wanted a great deal of Light to distinguish the Truth. For the *Donatists* consented to all the Dogma's of the Church, and even had the same Sacraments, except that they reiterated the Baptism, which *St. Cyprian* had done before them. As their Bishops could not shew that their Church was universal, *i. e.* diffused throughout the whole World; one of them, called *Gaudencius*, said, that *that* Party was Catholick, which had the Sacraments, and was immaculate. *St. Augustin* shewed him the Impertinence of that Explanation, and pressed him so home, that to extricate himself, he cried that the Catholick Church was an human Invention. The others approving what he had said of the Church, answered, that she was perish'd by the Crime of those who boasted to compose it, and was preserv'd no where else but in the Party of *Donatus*. But they were as weak to

prove that pretended Apostacy, as they had been presumptuous to advance it. It was shewed them by the Succession of Bishops, and by the Tradition of the same Doctrine, that the Catholick Church was *Christ's* Spouse, without Spots or Wrinkles. It was thus that *St. Irenaeus*, *Origen*, and *Tertullian*, had fought the Hereticks of their Time. It is true, that the *Donatists* said that they had communicated with the antient Roman Church, and that they had separated themselves from the new, which they pretended was corrupted: But they could not shew that antient Communication, for it was not long since they had begun to have Bishops of that Sect, residing at Rome, and communicating in Appearance with the Bishop of that See; they replied, that the antient Popes had been good and religious, but accused several of them of great Crimes. *St. Augustin*, answered, that the Church, with Regard to the Holiness of its Manners, will never be perfectly holy but in Heaven; whence they inferred, that contrary to the first Principles, *St. Augustin* made two Churches, one in Heaven and the other on Earth; which ridiculous and ignorant Inference, proceeded from their not understanding very well the Communion which subsists between them, and makes them but one under the same Chief; and the Difference between the Condition of the present Life subject to Corruption, for its particular Members, and that of the Life to come, where no Impurity will be found.

Marcellinus, who was both a very learned, judicious, and just Man, after he had heard, with a great deal of Attention, all that had been said on both Sides, and caused the Acts of the Conference to be sign'd by the Bishops of both Parties, pronounced his Sentence, whereby he declared, that the *Donatists* could not defend their Schism; and that the Orthodox had clearly proved the Truth. That therefore to hinder that the Corruption of an old Sore (these are his Terms) and which would not be cured by so clear a Declaration of the Truth, should prove hurtful to others. and to reduce it to be only prejudicial to itself, since it was their Desire: He ordered all Sorts of Persons of what Condition soever, to oppose the Assemblies of the *Donatists*, in the Places where they lived. Besides, he took from them all the Churches, the Use whereof he had granted them, to engage them to come to the Dispute. He declared afterwards, that those who would remain obstinately in their Schism, should be subject to the Penalties inflicted by the imperial Ordinances, which he had suspended in Hopes of their Reformation. He granted, however, to the *Donatist* Bishops, the Liberty of returning to their Houses, according to the publick Faith he had given them; being willing to be a religious Observer of his Word, even to those who would not keep their Word either to God or to the Church. He added, to suppress the Ravages committed by the *Circumcellions* (a Kind of *Donatists*) that the Places where the Masters would not keep them in their Duty, should be acquired to the *Fisc*.

This celebrated Conference prov'd advantageous, in that some schismatick Bishops and several Laicks, returned to the Communion of the Church, and *St. Augustin*, to whom the Honour of the Dispute was deferred, with the unanimous Consent of all the orthodox Bishops, says, that ever since that illustrious Triumph of the Truth, the Catholick Pastors were pleas'd to see almost all Christians re-united in the same Body; and that a great Number of those called *Circumcellions*, abjured their Error. But that Re-union was not made all at once; and the Bishops who remained in the Schism, having added the Spite of having been confounded to their former Rage, became more furious than before, and greater Enemies to the Reconciliation offered to them. They published that the Acts of the Conference had been falsified, though all imaginable Precautions had been used, to deprive them of the Means of advancing that Calumny; for, as I have said, there were four Bishops of each Side, appointed to keep the Minutes of the Acts; and the like Number to write Word for Word, what the one and

and the other said; besides the Secretaries, of the Tribune. Each signed his Propositions, and *Marcellinus* sealed the Registers. It was particularly against that Judge that the Schismatics conceived an incredible Hatred, though he had behaved towards them with all the Clemency which could be expected from one who loved Peace. Not contented to say that he had been corrupted by the Orthodox, they resolved to procure his Ruin. In fact, *Marinus* coming into *Africa* to command the Armies of the Emperor against *Heracian*, who had revolted: They made him believe that *Marcellinus* was of the Party of the Rebels, and knew so well how to disguise their Calumny, that that General had him put to Death; depriving, thereby, the Emperor *Heracius* of a faithful Servant, and the Church of a very zealous Defender. He informed the Emperor of his Judgment, by whom it was confirm'd; and far from listening to the Appeal of the Schismatics, he made at *Ravenna*, the Year following, a Law by which the Laicks of their Party were punished by large and heavy Fines, and the Clerks sent into Exile; besides the Restitution of the Basilicks, which had been left to them by Toleration, as we have said, and the Confiscation of all the Goods or Estates possessed by their Churches, to the Catholick Churches. *St. Augustin* speaking of that Law, says, 'that the Emperor had decreed against them, Penalties, less severe than they deserved, agreeable to a Christian Mansuetude, and had contented himself with the Banishment, instead of the last Supplice.'

The *Circumcellions* continued always in their Brutality, and killed a Priest of *Hippone*, called *Restitutus*. *Marcellinus*, who had the Government of the ecclesiastical Affairs, caused the Guilty to be severely whipped, and had infallibly condemned them to die, if *St. Augustin*, who was extremely Meek, had not wrote to *Marcellinus*, to *Donatus*, Proconsul of *Africa*, and to a Judge called *Apingius*, very urging Letters, to intreat them that they should not be put to Death, 'that the Suffrages of God's Servants, which ought to be glorious in the Church, should not be disgraced by the Blood of their Enemies; and that the Law of the Talion, should not have Place among the Deeds, or in Persecutions, which must serve for an Example of Patience to the Pagans. That if the Proconsul should make any Difficulty to grant that Favour, he desired him to keep the Criminals Prisoners, till he could write to the Emperor, to obtain from his Clemency the Favour he desired. Hoping that he would grant it as easily, as he had done that to the *Gentiles*, who having some Years before, put to Death several Christians, were notwithstanding, on a Request made to his Majesty, reprieved from Death.'

Dulcitius, whom the Emperor had sent in 411, to replace *Marcellinus*, succeeded to his Zeal for the Peace of the Church, as well as to his Dignity; for the Catholicks could not have a more courageous Protector, nor the *Donatists*, a more severe Executor of the imperial Laws against them. *Gaudencius*, one of their Bishops in *Numidia*, who had assisted at the Dispute, was an Incendiary among those, who were already but too much irritated against the Church. *Dulcitius* wrote to him a very civil Letter, to endeavour to bring him back to his right Senses, and hinder him from burning himself with all his People, as he pretended, rather than return to the Communion of the Orthodox. *Gaudencius* answered him by two Letters, which the Tribune sent to *St. Augustin*, who, though very busy at that Time, answered him by a Book which he composed on Purpose. The Schismatick answered, and the Bishop of *Hippone* replied, likewise, by another Book.

Emeritus, another *Donatist* Bishop, but more learned than *Gaudencius*, succeeded not better against *St. Augustin*. Pope *Zozimus* had sent him into *Mauritania*, with some other Prelates, to terminate the Differences of several Churches of that Province. Being at *Casarea*, he saw that false Bishop who governed the

Church of the Schismatics. He challenged him to a Dispute before all the People, that being among his own, and very secure, he could propose those fine Things, which, he said, he could not propose in the Conference, where he had been one of the principal Actors, and where he had boasted; he had neither been convicted, nor persuaded. The Occasion offered very fair to be satisfied, and to renew the Fight; but he declined it, though pressed to it by his Fellow-Citizens; who promised him to return to his Communion, even to the Risque of losing their Fortune, if he could refute the Catholick Doctrine. His Adversary spoke as he used to do, *i. e.* divinely well; and the poor Man, as if he had been struck with Thunder, remained mute, and said nothing, 'but that he could not oppose the Will of so many; but could likewise obey his own Will.' *St. Augustin*, in his Sermon on that Subject, examines ingeniously these Words, and draws from them the Subject of a powerful Exhortation, to the revolted against the Church, to return quickly to it. *Emeritus*, was notwithstanding, very learned and very eloquent, for in that great Conciliabule of *Bagia*, which those of his Communion had assembled against the *Maximianists*, he dictated the Sentence pronounced against them, which was so eloquent, that *St. Augustin* being blamed by *Cresconius*, to deceive Mankind by the Beauty of his Discourses, and to be too nice on his Elocution, which he called seditious, and Enemy of the Truth; he quotes that Piece as much elaborated, to shew them, that if it was ever so true that he was as eloquent as represented by them, they could not condemn him for studying his Speech, when he disputed against their Errors; since they had done the same in the Condemnation of those of their Brethren who had deviated from their Principles.

St. Augustin wrote, at that Time, a Book, intitled; *Of the Corruption of the Donatists*, where he shews the Difference between them and the *Arians*; and treats in an excellent Manner of the Use of the Imperial Laws against the Hereticks, to bring them back to the Unity of the Church. For 'though, says he, they seem to be made against them, because of the Penalties they are subjected to, they are, notwithstanding for their Advantage, because the Fear of incurring the Chastisements discerned in them, procure the Conversion of several. When the Emperors make bad Ordinances in favour of Error against the Truth, the Faith of the Faithful is try'd; and those who persevere are crown'd: But when they make good Ordinances, in favour of the Truth, against Falshood, Fear seizes those who are furious; and those who have Sense mend themselves.'

Notwithstanding the Severity of the Laws, made from Time to Time by the orthodox Emperors against the *Donatists*, they continued powerful in *Africa* for a very considerable Time; so that, in the Year 591, they had still Bishops to govern their Churches; who, not contented to continue in the Schism, presumed to equal themselves to the Catholick Bishops, and even pretended to the Rank of Primacy; when, according to the Custom of the Province of *Numidia*, they were the most Antients, to the Exclusion of the orthodox Bishops. Pope *Gregory*, inform'd of that Presumption, wrote to the Bishops of *Numidia*, and assured them that he would not touch on the ancient Customs kept among them, provided they were not against the Catholick Faith; but that as to the Establishment of Primates, he could not suffer that the *Donatists* should pretend to it, by Antiquity; and, that they ought to be satisfied that they are permitted to govern their People, without pretending to an Equality with the orthodox Prelates. But it was not enough for *Gregory* to have wrote on that Subject to the *African* Bishops, he wanted a stronger Authority than theirs, to shake the Insolence of the Schismatics: Therefore he wrote likewise to *Gennadius*, who commanded in *Africa*, and desired him to employ his Power, to hinder the Attempts they made daily against the Church; and to

cause

cause that the Primates, henceforwards, should be elected rather for their Merit, than in Consideration of their See.

The *Donatists*, having afterwards united themselves

with the *Arians*, in the frequent Revolutions that happened in *Africa*, were so confounded with those Heretics, that the Ecclesiastical Historians take no Notice of them after the Sixth Century.

D Y I N G.

DYING, is the Art of Tinging any Matter with a permanent Colour, which penetrates the Substance thereof.

The Art of *Dying* is most commonly applied to Wool, Linnen, Cotton, Silk, Hair, Feathers, Horn, Leather; and the Threads and Webs thereof.

A *Dyer* is a Sort of Chymist, and like him must have a Laboratory stocked, not with Alembicks, Retorts, Recipients, &c. but with Coppers of different Sizes for his Operations; and with Drugs, he is furnished with from the three different Kingdoms I have run through, in my Chymical Peregrinations, viz. the *Vegetable*, *Mineral*, and *Animal* Kingdoms.

The *Vegetable Kingdom* furnishes him with Gums, Barks, Rinds, Roots, Seeds, &c.—The Gums are, Gums *Tragacanth*, *Arabick*, *Mastic*, and *Sanguis Draconis*.—The Barks are, *Alder*, *Saplin*, and *Crab-Tree Barks*.—The Seeds are *Fenugreek-Seed*, *Cumin-Seed*, &c. the Peels and Rinds are, *Pomegranate-Peel*, *Walnut-Rinds*; besides *Walnut Roots*, *Galls*, *Sumach*, *Wheat-Flower*, *Broom*, *Agaric*, *Senna*, *Lemon-Juice*, *Vinegar*, *Aqua Vitæ*, *Linseed-Oil*, *Indigo*, *Woad*, *Weld*, *Wood-Wax*, *Logwood*, *Fustick*, *Madder*, *Brazil*, *Cochineal*, *Kermes*, *Safflower*, and *Sanders*.

The *Mineral Kingdom* supply him with *Steel-Filings*, *Slippe*, *Pewter*, *Copperas*, *Verdegrease*, *Antimony*, *Litharge*, *Arsenick*, *Allum*, *Argol*, *Salt-petre*, *Sal Armoniac*, *Lime*, &c.

The Drugs he finds in the *Animal Kingdom* fit for his Use, are *Honey*, *Ox-gall*, *Folks of Eggs*, *Urine*, &c.

Of these Ingredients some are *Colouring*, and some *Non-colouring*.

The *colouring Drugs* are of three Sorts, *blue*, *yellow*, and *red*. The *blue* are *Indigo*, *Woad*, *Weld*, *Wood-wax*, and *Logwood*. The *yellow* is the *Fustick*. The *red* are *Madder*, *Brazil*, *Cochineal*, *Kermes*, *Safflower*, *Sander*, *Annoto* and young *Fustick*, for Orange Colours, and *Wood-foot*.

Note, That *Indigo* is a Drug of a deep blue Colour, brought hither from the *West-Indies*: It is drawn from the Leaves of a Plant, which the *Spaniards* call *Avil*, and we *Omele*, *Nil*, *Indian Woad*, *Glastum-indicum*, *Blue-weed*, and *Indigo*; and is prepared thus: When the Plant is arrived at a certain Height, and its Leaves are in a good Condition, they cut them down, and throw them into a kind of Vault, covering them with Water. These they boil together for the Space of 24 Hours; at the Top swims a Scum, with all the different Colours of the Rainbow. Then the Water is let off into another Vessel, where they agitate and skim it, as it were, with five or six long Poles, fitted together for that Purpose. This they continue to do, till the Water becomes of a deep green, and till the *Grain*, as they call it, forms itself, which they discover by taking a little of it out into another Vessel, and spitting in it; for if they perceive then a blueish Dreg subsiding, they cease to beat. The Matter then precipitates of itself to the Bottom of the Vessel, and when it is well settled, they pour off the Water. After this they take out the *Indigo*, and put it into little Linen Bags, and let it drain; which done, they put it into shallow wooden Boxes, and when it begins to dry, they cut it into Slices, and let them harden in the Sun. There are several Kinds of *Indigo*; the best is that called *Serquiffe*, from the Name of a Village where it is prepared. That is best which is in flat Pieces, of a moderate Thickness, pretty hard, clean,

light enough to swim in the Water, inflammable, of a fine blue Colour, marked a little on the Inside with Silver Streaks, and appearing reddish when rubbed on the Nail.

Woad gives also a blue Colour; it arises from a Seed, sown annually in the Spring; which puts forth a Plant called *Glastum Sativum*, whose Leaves resemble those of Ribwort-plantain. They have usually three, four, or five Crops of Leaves every Year; but only the two or three first are of any Value; whereof the first is best, and the rest in their Order. When the Leaves are ripe they crop or gather them; after which they carry them to a Woad-mill, to grind them small: Which done, they are laid eight or ten Days in Piles or Heaps; and at last made into a kind of Balls, which are laid in the Shade, on Hurdles to dry: Afterwards they break or grind them to Powder; and when ground spread it on a Floor, and water it, which they call *Couching*. Here they let it smok and heat, till, by torrifying it every Day, it becomes quite dry, which they call *Silvering*; a Week after which it is in a Condition to be used in *Dying*. A *Woad-blue* is a very deep Blue, almost black; and is the Basis of so many Sorts of Colours, that the *Dyers* have a Scale, whereby they compose the divers Sorts or Degrees of *Woad* from the brightest to the deepest.

Weld, is a Plant used to give a yellow Colour, and for this Reason called in *Latin* *Luteola*, of *Luteus*, yellow. This Plant is sown in a light Ground, in the Months of *March* or *September*; and is ripe in *June* or *July*. In hot Countries it is frequently dry enough when gathered; but in colder, Care must be taken to dry it. Great Circumspection is to be used that it be not gathered before thorough ripe; as also to prevent its getting Wet when gathered. This Plant is much cultivated in *Kent*, for the Use of the *London Dyers*. With the Help of Pot-ashes, it yields a deep Lemon Colour; but either by the Smallness of the Proportion put into the Liquor, or by taking from it a slighter Tincture, it serves to dye all Colours between white and a deep yellow. Its Dye will hold well, except against Urine and tartarous Liquors.

Madder, is a red, bitter, astringent Root of a Plant, called by Botanists *Rubia Tinctorum*, which gives a strong and rich red Colour.

Brazil, is an *American* Wood, commonly supposed to have been thus denominated because first brought from *Brazil*; though *Huet* shews it had been known by that Name many Years before the Discovery of the Country. It is denominated variously according to the Places whence it is brought. Thus we have *Brazil* from *Farnambuck*, *Brazil* of *Japone* of *Lemon*, of *St. Martha*; and lastly, *Brazilletto*, or *Jamaica* Wood brought from the *Antilles*. The *Brazil* Tree ordinarily grows in dry barren Places, and in the Middle of Rocks; it is very thick and large, usually crooked and knotty: Its Flowers, which are of a beautiful Red, exhale a very agreeable Smell, which strengthens the Brain. Though the Tree be very thick, it is covered with so gross a Bark, that when the Savages have taken it off the Wood, a Trunk, which before was the Thickness of a Man, is scarce left equal to that of his Leg. The *Brazil* Wood of *Farnambuck* is esteemed the best. It must be chosen in thick Pieces, close, sound, without any Bark on it; and such as, upon splitting, of pale becomes reddish; and

and when chewed has a saccharine Taste. In dying it gives but a spurious Colour, and easily evaporates and fades; nor is it to be used without Allum and Tartar.

Kermes, or *Kermes-berry*, called also *Scarlet-grain*, by the *Greeks* *Coccus Paphica*, by the *Latins* *Vermiculus*, by the *French*, *Grain de Gall*, or *Vermeil*, is a kind of Nest of an Insect, about the Size of a Juniper-berry, round, smooth, and glossy, of a beautiful red Colour, and full of a mucilaginous Juice, of the same Dye; found adhering to the Bark, on the Stern and Branches of a sort of Scarlet Oak, called by *Botanists* *Ilex Aculeata*, *Cocci-glândifera*; growing in *Spain*, *Languedoc*, and other hot Countries. The *Kermes-berry*, is of great Use in dying Scarlet, and is prepared thus: The Grain being taken when ripe, is spread on Linen; and at first, while it abounds most with Moisture, is turned twice or thrice a-day, to prevent its heating, till such Time as there appears a red Powder among it; this is separated, by passing it through a Searce; and then the Grain is again spread abroad on the Linen, till the same Redness of Powder is perceived when the sifting is repeated. This Process is continued while any red Powder is discovered on the Surface of the Grain, which is still passed through the Searce, till it yield no more. In the Beginning, when the small red Grains are found to move, as they will do, they are sprinkled over with strong Vinegar, and rubbed between the Hands. Was not this Precaution taken, out of every Grain would be formed a little Fly, which would skip and fly about for a Day or two; and at last changing its Colour fall down dead. The Grain being quite emptied of its Pulp or red Powder, by the Process above-mentioned, is washed in Wine, and then exposed to the Sun; after this, it is put up into small Bags; and along with it, the Proportion of red Dust which it has afforded. According to Mr. *Marsigli's* Experiments made at *Montpelier*, the *Kermes-Berry* has the Effect of Galls, when mixed with Vitriol, and makes a good Ink; mixed with Oil of Tartar, or Lime-Water, its Colour turns from a Vermilion to a Crimson Colour. In a Decoction of turnsole Flowers, it retains its proper Colour.

Fustick, is a yellow Wood which yields a fine golden Colour, but there should be some other Ingredients mixed with it to make it lasting. The Dyers use it chiefly for Black, but some of the ablest and honestest among them, who would dye none but the best, and most lasting Colours, are of Opinion it should be absolutely excluded out of all dying. Besides this there is another kind of *Fustick*, or *Fustel*, growing in *Italy*, *Provence*, &c. used to dye a Coffee-Colour.

The *non-colouring Ingredients*, are all the others above-mentioned under the three different Classes of Vegetable, Mineral, and Animal Kingdoms; which non-colouring Ingredients borrow different Denominations from their different Qualities; for some are re-tingent, or binding, as Galls, Sumach, Alder-Bark, Pomegranate-Peel, Walnut-Rinds and Roots, Sapling-Pek, and Crab-Tree Bark: And others Smecticks, or Abstersives, as Soap, Fullers-Earth, Linseed-Oil, Ox-Gall, &c. To the Class of *non-colouring* Ingredients, may also be added Water, by Dyers called *White Liquor*; which is of two Sorts, viz. *Well-Water*, and *River-Water*. *Well-Water* is used in Reds, and in other Colours wanting Restrictency, as well as in dying Stuffs of a loose Contexture, as Callico, Fustian, and the several Species of Cottons; but nought for Blues, and making Yellows and Greens look rusty. *River-Water*, which is softer and sweeter than the former, and dissolves Soap better, is used in most Cases for Washing, Rinsing, &c. the Cloths after Dying. Besides this there is a *Liquor*, absolutely so called, which is made of one Part of Bran and nine Parts of River-Water, boiled an Hour, and put in a Cistern to settle. This *Liquor*, if kept four or five Days in

Summer, turns too sour, and becomes unfit for the Use it is prepar'd, which is to contribute to the holding of the Colour; for as Starch, which is only the Flower of Bran, makes a clinging Paste which will conglutinate Paper, though not Wood or Metals; likewise, Bran-Liquors are us'd to mealy dying Stuffs, as to Madder, which is render'd clammy and glutinous by being boil'd in Bran-Water; and thus made to stick better to the *Villi* of the Stuff dy'd.

Having thus provided our Dyer's Laboratory, with all Things necessary for his Profession, we must, before he can apply them to Use, give him some theoretical Instructions, relating to the Art of Dying; in general, viz. 1. That out of all the Materials which of themselves give Colour, as red, yellow, and blue; with the primitive fundamental Colour, white; arises that great Variety of Colours, we see in dy'd Stuffs. 2. That few of the colouring Materials (as Cochineal, Soot, Wood-Wax, or Woad) are in their outward, and first Appearance of the same Colour, which by the slightest Distempers and Solutions in the weakest Menstrua, they dye upon Cloth, Silk, &c. 3. That many of the colouring Materials will not yield their Colours, without much grinding, steeping, boiling, fermenting, or Corrosion, by powerful Menstrua, as Red-Wood, Weld, Woad, Annato, &c. 4. That many of the colouring Materials, will of themselves give no colouring at all, or give it with much Disadvantage, unless the Cloth, or other Stuff to be dy'd; be first cover'd, with some other Matter, though colourless; as Madder, Weld, and Brazil, with Allum. 5. That some of the colouring Materials, by the Help of other colourless Ones, do strike different Colours from what they would alone, and of themselves, and that according to the different Salts the colourless Materials abound with, and the different Species of colouring Ones, v. g. urinous Salts and Alkalies, alter the Colour of the Infusions of *Balouestia* or Pomegranate-Flowers, Red-Roses, Clove-July-Flowers, *Mezerion*, Pease-Bloom, Violets, and Cyamus-Flowers; and the Juices of the Berries of *Ligustrum*, of Black-Cherries, and Blackthorn-Berries from red to green. *Cochineal*, which of itself is Red, by the Affusion of Spirit of Vitriol (which is an acid Salt) strikes the most vivid Crimson that can be imagined; and with urinous Salts and Alkalies, will be again changed into an obscure Colour betwixt a Violet and a Purple. Urinous Spirits and Alkalies, make the yellow Infusions of Madder, Roots, Red, of Brazil-Wood, purplish; of *Lignum nephreticum*, blue; the red Infusion of Logwood, purple; and of the Leaves of Sena, red. Acid Salts quite alter the said Infusions from Red to Yellow. All red, blue, and white Flowers are immediately upon the Affusion of an Alkali, changed to a green Colour, and thence in no long Process of Time, turn Yellow; and all the Parts of Vegetables which are green, will in like Manner strike a Yellow with an Alkali. The blue Seed-Husks of *Glastrum Silvestre*, old gather'd and dry, diluted with Water, stain a Blue, which upon the Affusion of Lye strikes a Green; which said Green or Blue being touched with Oil of Vitriol, dyes a Purple, and all these three Colours stand. 6. That some Colours, as Madder, Indigo, and Woad, by reiterated Tinctures will at last become Black. 7. That though Green be the most frequent and common of natural Colours, yet there is no simple Ingredient, which is now used alone, to dye Green with upon any Material; Sap-Green, the condensed Juice of the Rhamnus-Berry, being the nearest, and this only us'd by Country People. 8. There is no black Thing in Use which dyes black, though both the Coals and Soot of most Things burnt or scorched, be of that Colour; and the blacker by how much, the Matter, before it was burnt, was whiter, as in the famous Instance of Ivory Black. 9. The Tincture of some dying Stuffs will fade even with laying, or with the Air, or will stain even with Water, but very much with Wine, Vinegar, Urine, &c. so that what we have said of the different Changes which happen in Colours, by the Mixture of different Salts there is not

one Colour truly fix'd, since what seems to stand, and be Lye-Proof, is either wholly destroy'd by a different Salt, or chang'd into a much different Colour. 10. Some of the *Dyer's* Materials are us'd to bind and strengthen a Colour, some to brighten it, some to give Lustre to the Stuff, some to discharge and take off the Colour, either in whole or in Part, and some out of Fraud, to make the Material *dy'd*, if costly, to be heavier. 11. Some *dying* Ingredients, or Drugs, by the Coarseness of their Bodies, makes the Thread of the *dy'd* Stuff seem coarser; and some by striking them smaller; and some by levigating their Asperity finer. 12. Many of the same Colours are *dy'd* upon different Stuffs with different Materials, as Red-Wood used in Cloth, not in Silks; Annato in Silks, not in Cloth; so that they may be *dy'd* at several Prices. 13. Scouring and Washing of Stuff to be *dy'd*, is to be done with appropriate Materials; as sometimes with Ox-Galls, sometimes with Fullers Earth, sometimes with Soap: This latter being pernicious in some Cases, where Pot-Ashes will stain or alter the Colour. 14. Where great Quantities of Stuffs are to be *dy'd* together, or where they are to be done with great Speed, and where the Pieces are very long, broad, thick, &c. they are to be differently handled, both in Respect to the Vessels and Ingredients. 15. In some Colours and Stuffs, the tingent Liquor must be boiling, in other Cases blood-warm, in some it may be cold. 16. Some tingent Liquors are fitted for Use by long keeping, and in some the Virtue wears away by the same. 17. Some Colours or Stuffs, are best *dy'd* by reiterated Dippings into the same Liquor at several Intervals of Time, and some by continuing longer, and other lesser while therein. 18. In some Cases, the Matter of the Vessel wherein the Liquors are heated, and the Tinctures prepar'd, must be regarded; as that the Kettles be Pewter for *Bow-dye*. 19. Little Regard is had how much Liquor is us'd in proportion to the *dying* Drugs, the Liquor being rather adjusted to the Bulk of the Stuff, as the Vessels are to the Breadth of the same; the Quantity of the *dying* Drugs being proportioned to the Colour, higher or lower, and to the Stuffs both, as likewise the Salts are to the *dying* Drugs.

From these general Observations on the Art of *Dying* with Regard to the Theory, we'll descend on more particular Ones of the same Kind, relating to our *Colouring*, and *Non-colouring* Ingredients, before we go to work.

For our *colouring* Drugs it must be observed. 1. That though Iron and Steel, or what is made from them, are used in *dying* Black, it cannot be demonstrated but by mere Suppositions drawn from its Ustulation and Attrition, that it contributes thereto, *v. g.* we see that green oaken Boards become black by the Affriction of a Saw; that a green Apple cut with a Knife turns of the same Colour; that the white Grease wherewith the Wheels of Coaches are anointed, becomes likewise black by means of the Iron Boxes wherewith the Nave is lined, and the Friction between the Nave and the Axle-tree; that an oaken Stick becomes black by a violent Friction against other Wood in a turning Lath; and that the black Colour on earthen Ware is given with Scalings of Iron vitrified; but no Philosopher has attempted yet to assign the Manner how such a Thing is effected; neither is it a Thing essential to the Art of *Dying*; it suffices to know, that Copperas the most usual Ingredient for *dying* Black, is the Salt of Pyrites, wherewith old Iron is incorporated, and wherever this is used, some of the Astringents are to accompany it.

2. That Red-Wood chopp'd and ground in a Mill, is us'd for *dying* Cloth, Rugs, &c. of the coarser Sort. Its Tincture which is a Sort of Brick-Colour, is got out by long boiling it with Galls, and the Cloth along with it, it stands better than Brazil.

3. That Brazil, chopp'd also and ground, *dyes* a Pink-Colour or Carnation, nearest approaching Cochineal: It is used with Allum, and serves also for Purples with Pot-Ashes; it easily stains.

4. That Madder gives a Colour near approaching the Bow-Dye, or New-Scarlet: Those called Bastard-Scarlets are *dy'd* with it. It endures much Boiling, and is used both with Allum and Argol; and holds well. The brightest *Dyes* with Madder are made by over-dying the Stuff, and then discharging Part of it by back boiling in Argol. It is used with Bran-Water instead of white Liquor.

5. Cochineal used with Bran-Liquor in a Pewter Furnace, with Aqua-fortis, gives the Dye called among us, though improperly, *Scarlet in Grain*. Any Acid takes off the intense Redness of this Colour, and turns it towards an Orange or Flame Colour; with this Colour the *Spanish* Leather and Wool, us'd by Ladies, are *dy'd*.

6. Annato gives an Orange-Colour, especially to Silks, Linens, and Cottons, for it does not penetrate Cloth: It is used with Pot-Ashes.

7. Weld, by the Help of Pot-Ashes, yields a deep brown Colour; though it is used to give all Sorts of Yellows.

8. Wood-Wax or Green-Wood, called also *Genista Tinctoria*, and the *Dyer's Weed*, has the like Effect as Weld, though its Use is chiefly confin'd to coarse Cloths. It is set with Pot-Ashes or Urine.

9. Fustick is of two Sorts, young and old. The former chopp'd and ground yields a Sort of reddish Colour: The latter a Hair-Colour distant several Degrees of Yellow from the former. It spends with or without Salts, works either hot or cold, and holds firm.

10. Wood-Soot, containing not only a Colour, but a Salt, needs nothing to extract its Dye, or make it strike on the Stuff. The natural Colour it yields is that of Honey, but it is the Foundation of many other Colours on Wool and Cloth only.

11. Woad, ground or chopp'd with a Mill for the Purpose, is made up into Balls, which being broken and strew'd on Lime or Urine, is us'd with Pot-Ashes or Sea-Weed, and gives a lasting Blue. Lime or Chalk, accelerates the Fermentation of the Woad, which in three or four Days will work like a Guile of Beer, and be covered with a greenish Froth or Flower. An intense Woad-Colour is almost Black, that is, is of a Damson Colour: It is the Foundation of so many Colours, in its different Degrees of Shades, that the *Dyers* have a Scale whereby to compute the Lightness and Depth of this Colour.

12. Indigo is of the like Nature, and us'd for the same Purposes as Woad, only that it is stronger.

13. Logwood, chopp'd and ground, yields a purplish Blue: It may be us'd with Allum. Formerly it was of ill Repute, as a most false and fading Colour; but since it has been us'd with Galls, it is less complain'd of.

For the *non-colouring* Ingredients, it must be observ'd, likewise, 1. That for true or *Spanish* Blacks, are used Copperas, Steel-Filings, and Slipp (the Stuff found in the Troughs of old Grind-Stones, whereon Edge Tools have been ground) but not for the *Flanders* Blacks.

2. That Pewter dissolved in Aqua-fortis, is used for the new Scarlet or Bow-Dye.

3. That Litharge, though not own'd or allow'd, is used to add Weight to *dy'd* Silks.

4. That Antimony is us'd chiefly for the same Purpose, though it also contains a tingent Sulphur, which by Precipitation, &c. affords a great Variety of Colours.

5. That Arsenick is us'd in *dying* Crimson, which I know very well, gives it a Lustre.

6. That Verdigrise is used by Linen *Dyers*, in their yellow and green Colours.

7. That Allum is much used, though with what Intent is not agreed on; whether to render Water a proper *Menstruum* to extract the tingent Particles of certain hard Drugs? Or to scour the Sordes which may interpose between the Stuff and the Dye, and hinder their due Adhesion? Or to intenerate the Hairs of Wool and Hair Stuffs, that they may better imbibe their

their Colour? Or to contribute to the Colour itself, as Copperas does to Galls in making Black, or Juice of Lemons to Cochineal, in Carnations, or Aqua-fortis impregnated with Pewter in the Bow-Dye? Or, which seems more probable, to serve as a Vinculum between the Cloth and Colour, as clammy Oils, and Gum-Waters, do in Painting; Allum being a Substance whose accelerated Particles dissolved with hot Liquors, will enter the Pores of Stuffs, and on which the Particles of *dying* Drugs will catch. Though it may also serve another Use, *viz.* to dry up certain Particles which disagreed with the Colour, to be super-induced: To which add, that it may also serve to brighten a Colour, by incrustating the Stuff to be *dy'd* with its Crystals, on which the *Dye* coming to be applied, has a finer Effect, than if it was applied on a scabrous Matter, such as an un-allumed Cloth is.

8. That Bran and Bran-Water, whose Flowers enter the Pores of the Stuff, levigates its Surface, and thus renders the Colour laid on it more beautiful; much as Woods to be gilded, are first smoothen'd over with white Colours.

9. That Salt-petre is used chiefly with Aqua-fortis, in the Bow-Dye, to brighten Colours by back-boiling; for which Purpose, Argol is most commonly us'd.

10. That Lime or Calx, is used in the Working of blue Fats.

11. That Yolks of Eggs and Ox-Gall, are only us'd by a few particular *Dyers* to scour, promote Fermentation, and increase Weight.

12. That Stale Urine is us'd as a Lixivium to scour, also to help the Fermentation and heating of Woad; though it is also us'd in the blue Fats instead of Lime: In reality, as it discharges, the Yellow, wherewith Black and most Greens are compounded, it is used to spend Weld withal; yet it is known, that the Urine or old Mud of pissing Places, will *dye* a well scour'd Piece of Silver of a golden Colour; it being with this (not *Bath Water* as imagined) that the *Bath Six-pences*, &c. are prepar'd.

13. That Gums, Tragacanth, Arabick, Mastick, and Sanguis Draconis, are us'd in *dying* Silk, chiefly to give it a Gloss, which may make it seem finer as well as stiffer, and to increase its Weight.

Note, That concerning Weight which Colours give to Silks, one Pound of raw Silk loses four Ounces by washing out the Gums and natural Sordes. That the same scour'd Silk may be rais'd to above thirty Ounces by the remaining twelve, if it be *dy'd* Black, with certain Materials; that the Reason why black Colour may be *dy'd* the heaviest is, that all ponderous Drugs may be *dy'd* Black, whereas, perhaps, there seem to be few or no Materials wherewith to increase the Weight of Silk, which will consist with fair light Colours. That of Things useful in *Dying*, especially Black, nothing increases Weight so much as Galls; by Means whereof black Silks recover the Weight which they lost by washing out their Gum: Nor is it counted extraordinary, that Black should gain about four or six Ounces in the *Dying* upon each Pound. Next to Galls, old Fustick increases the Weight, about one and a half in twelve. Madder about an Ounce. Weld half an Ounce. Blue Fat in deep Blues about the fifth Stall, adds no considerable Weight: Neither do Logwood, Cochineal, or Annato; nor even Copperas of itself where Galls are not. Slipp adds much to the Weight, and gives a deeper Black than Copperas, which affords a good Excuse for the *Dyers* that use it.

Note, Also, that the *dying* Materials are generally applied in Decoctions made in Water, more or less strong, according to the Occasion; sometimes by only dipping the Stuff in the Vault or *Dye*, sometimes by boiling it therein; and sometimes by leaving it a Day or two more to steep. For the Allum in *dying* Silks is always applied cold, in

which State alone, it contributes to the Brightness of the *Dye*.

From all these Observations, we may justly infer, that four Things are requisite for a good *Dye*, *viz.* 1. The opening or rarifying of the Body to be *dy'd*, to dispose it to imbibe the Colour. 2. The Tincture or *Dye* itself. 3. The binding or fixing the Colour, to prevent its fading, or being discharg'd. And, 4. The Lustre or Brightness.

There are two Manners of *Dying*, one *hot*, the other *cold*. *Dying-hot*, is when the Liquors and Ingredients are boil'd before the Cloth be dipp'd therein, or even when the Cloths themselves are boil'd in the *Dye*. *Dying-cold*, is when the Ingredients are dissolv'd cold; or at least suffer'd to grow cold, ere the Stuffs be put in them.

With these useful and indispensibly necessary Instructions, we may venture to step into our Laboratory, in order to put them in Practice; where we may apply ourselves to *dye* all Sorts of different Stuffs, of all Sorts of Colours, *viz.* all Sorts of woollen Manufactures, as Cloths, Serges, Druggets, &c. Wools for Tapestry, and black Wools for Cloths, Serges, &c. All Sorts of Silks; all Sorts of Threads; and Hats; of all Sorts of Colours, *viz.* Black, Scarlet, properly speaking, Violet-Scarlet, Purple, Amaranth, and Pansy-Scarlet; Crimson-Reds, Carnations, Flame and Peach-Colours; Orange-Aurora, or golden-yellow, Brick-Colour, Onion-Peel-Colour; all Sorts of Blues; dark Browns, Minims and Tan-Colours; Pearl-Colours; all Sorts of Greens; Pale-Yellows, Lemon-Colours; Sulphur-Colours; Olive-Colours; Feulemort; Hair-Colours; Musk and Cinnamon-Colour, and Nacarar or bright Orange-Red.

We'll begin to *dye* black superfine Cloth, of the best Sort, which we'll do by first giving it a deep Blue, in a strong Decoction made of Woad and Indigo; which done, the Cloth or Stuffs are to be boil'd with Allum and Tartar, or Pot-Ashes, then madder'd with common Madder, and afterwards *dy'd* Black, with Aleppo, Galls, Copperas, and Sumach; and lastly finished by back-boiling in Weld.

Scarlet is *dy'd* with Kermes and Cochineal, to which may be added Agarick and Arsenick, to make the Colour brighter. Crimson-Scarlet is given with Cochineal, Mastick, Aqua-fortis, Sal-Armoniack, Sublimate and Spirit of Wine. Violet-Scarlet, Purple, Amaranth, and Pansy-Scarlets, are given with Woad, Cochineal, Indigo, Braziletto, Brazil and Orchal. For common Reds, pure Madder is used without other Ingredients. Crimson-Reds, Carnations, Flame and Peach-Colour, are *dy'd* according to their several Hues, with Cochineal, Mastick, without Madder and the like. Orange-Aurora, or golden Yellow, Brick-Colour, and Onion-Peel-Colour, are given with Woad and Madder, temper'd according to their respective Shades.

There are but two Sorts of Blues, one dark, and the other brighter: The dark Blue is given with a strong Tincture of Woad, and the brighter with the same Colour, as it weakens in working.

Dark-Browns, Minims, and Tan-Colours, are given with Woad, weaker in Decoction than for Black, with Allum, and Pot-Ashes; after which they are madder'd higher than Black: For Tan-colouring a little Cochineal is added.

Pearl-Colours are given with Galls and Copperas; some are begun with Walnut-tree-Roots, and finish'd with the former; though to make them more serviceable, they dip them in a weak Tincture of Cochineal.

Greens are begun with Woad, and finish'd with Weld.

Pale-Yellow, Lemon-Colour, and Sulphur-Colour, are given with Weld only.

Olive-Colours, of all Degrees, are first put in Green, and taken down again with Soot, more or less, according to the Shade requir'd.

Feulemort,

Feulemort, Hair-colour, Musk, and Cinnamon-colour, are given with Weld and Madder.

Nacarar, or bright Orange-red, is given with Weld and Goat's-Hair, boiled with Pot-Ashes; Fustick here, is forbid as a false Colour.

Wools for Tapestry, are dyed in the same Manner as Cloth, excepting Blacks, which are only to be woaded, and then put in black as above. Black Wools for Cloths and Serges, may be begun with Walnut-tree Roots, and Walnut Rinds, and finished by dipping it in a Vault of Black.

Silks are dyed in a Manner quite different from Cloths or Stuffs; for they are first boiled with Soap, &c. then scowered and washed out in the River, and afterwards steeped in Allum-Water cold. If they are to be dyed Crimson they must be scowered a second Time, before they be put in the Cochenal Vault.

Three different Sorts of *Crimson-Colours*, are given to Silks, viz. *red Crimson*, *violet Crimson*, and *Cinnamon Crimson*.

To dye Silk *Red-Crimson*, it must be boiled an Hour and a half, in a Decoction of Cochenal, Mastich, Galls, Turmeric, Arsenick and Tartar, all put together in a Copper of fair Water almost boiling; when the Silk has boiled for that Space of Time, it is left to stand in the Liquor till the next Day. The *Violet-Crimson*, is also given with Cochenal, Arsenick, Tartar, and Galls; but the Galls in less Proportion than in the former. When the Silk is taken out, it is to be well washed, and put in a Vault of Indigo. The *Cinnamon-Crimson* is begun like the Violet, but finished by Back-boiling; if too bright, with Copperas; if dark with a Dip in Indigo.

Silks dyed of two Sorts of *Blues*, viz. *Light-blue*, and *Sky-blue*. *Light-blue* are given in a Back of Indigo. *Sky-blues*, are begun with Orchal, and finished with Indigo.

To give a *Citron-Colour*, the Silk is first allumed, then welded with a little Indigo. *Pale-Yellows*, after alluming, are dyed in Weld alone. *Pale and brown Auroras*, after alluming, are welded strongly, then taken down with Rocou dissolved with Pot-Ashes. *Flame-Colour* is begun with Rocou, then allumed, and dipped in a Vault or two of Brazil. *Carnation and Rose-Colours*, are first allumed, then dipped in Brazil, and Braziletto. *Lead-Colour*, is given with Fustick, or with Weld, Braziletto, Galls, and Copperas. But the Galls on these and other Occasions, are not to be over-dosed, which increases the Weight to the Damage of the Purchaser; for which Reason it is punished in France as a Fraud: In Reality few but black Silks need Galls.

Black Silks, of the coarser Sort, are begun by scouring them with Soap, as for other Colours; which done, they are washed out, wrung, and boiled an Hour in old Galls, where they are left to stand a Day or two; after which they are washed again with fair Water, wrung and put in another Vault with new and fine Galls; then washed and wrung again, and finished in a Vault of Black. *Fine black Silks* are only put once into Galls, viz. the new and fine Sort, which has only boiled an Hour; then they are washed and wrung out, and dipped thrice in Black, to be afterwards brought down by Back-boiling with Soap.

Thread is dyed likewise, of all Sorts of Colours, and begun by scowring it in a Lye of good Ashes; after which it is wrung, rinsed out in River Water, and wrung again. Thus prepared, the Dyer gives it what Colour he pleases, with the following Drugs, viz. *Red Colour*, both *bright* and *dark*, *Flame-Colour*, &c. with Brazil, either alone, or with a Mixture of Rolac. *Violet*, *dry Rose*, and *Amaranth*, with Brazil, taken down with Indigo. *Bright blue*, with Braziletto and Indigo. *Bright green*, is first dyed blue, then Back-boiled with Braziletto, and Verdet, and lastly woaded. *Dark green*, is given like the former, only darkening more before woading. *Lemon or pale Yellow*, with Weld mixed with Rolac. *Feulemort and Olive-Colour*, with Galls and Copperas, taken down with Weld, Rolac, or Fustick. And *black* with Galls and Cop-

peras taken down and finished with braziletto Wood.

Hats are dyed with Braziletto, Galls, Copperas, and Verdegrease, dissolved and boiled in a Copper capable of receiving, besides the Liquor, twelve Dozens of *Hats* on their Blocks or Moulds. Here the *Hats* are left to boil some Time; after which they are taken out, and left to stand and cool; then dipped again, and thus alternately, oftner or seldomer, as the Stuff is of a Nature to take the Dye with more or less Difficulty; as we design to explain it in a more ample Manner in our Treatise of *Hatters*, under the Letter H.

As there are Fraud and Knavery, among Dyers, as in all other Professions, some Artists have discovered the Secret of making Proof of the Truth of Dyes, and of examining the Justice and Legitimacy of their Composition, in the following Manner, for Cloth or Woollen Stuffs.

To discover whether a Cloth has been duly treated by the Dyer, and the proper Foundations laid, a white Spot, by the French called *Rosette*, of the Bigness of a Shilling, ought to be left, besides a white Stripe between the Cloth and the List. Further Proof is had by boiling the dyed Stuff in Water with other Ingredients different according to the Quality of the Dye to be proved. If the Colour sustain the Test, i. e. do not discharge at all or very little, so that the Water is not tinged by it, the Dye is pronounced good: Otherwise false.

There are also Proofs of the Dyes of Silks: viz. For red Crimson, the Proof is made by boiling the Silk with an equal Weight of Allum. For Scarlet Crimson, it is boiled with Soap, almost of the Weight of the Silk. For Violet-Crimson, with Allum of equal Weight with the Silk, or with Citron Juice about a Pint to a Pound of Silk. These Ingredients are to be mixed, and put in fair Water, when it begins to boil; after which, the Silks are also to be put in; and after boiling the whole for half a quarter of an Hour, if the Dye be false, the Liquor of the red Crimson will be Violet, in case it have been dyed with Orchal, or very red, if with Brazil. That of Crimson-Scarlet, if Rolac have been used, will become of an Aurora Colour, or if Brazil has been used, red. And that of *Violet-Crimson*, if Brazil or Orchal have been used, will be of a Colour bordering on red. On the contrary, if the three Sorts of Crimson be truly dyed, their Liquor will discover very little Alteration. A still surer Way to discover whether Crimson Silks have been rightly dyed, is by boiling a Piece of standard dyed Crimson Silk, kept for that Purpose at Dyer's-ball, after the same Manner, and then comparing the Tincture of the two Liquors.

To discover whether other Colours have been dyed with Galls, the Silk is put in fair boiling Water, with Pot-Ashes, or Soap, nearly of the Weight of the Silk, after some Time, it is taken out; upon which if it has been dyed with Galls, the Colour will be all vanished, and nothing but that of the Galls left, which is a Sort of *Feulemort*, or Wood-colour. The dying Silk with Galls may also be detected by putting it in boiling Water, with a Gallon of Citron Juice; being taken out and washed in cold Water, and then dipped in a black Dye, if Galls have been used it will turn black, if not it will be of a brown Bread Colour.

To discover whether black Silks have been overdyed with Galls, Steel-slings, or Slipp, it is boil'd in fair Water, with twice its Weight of Soap: If it be laden with Galls it will turn reddish, otherwise it will keep its Colour.

To discover whether black Cloths have been first woaded and maddered, a Sample of it, and at the same Time a Sample of standard Black, kept for that Purpose by the Dyer's Company, is to be taken; and then as much Roman Allum as is equal in Weight to both, together with a like Weight of Pot-Ashes, is to be put over the Fire in a Pan of Bran-Water; when it begins to boil the two Samples are to be put in; and after half an Hour to be taken out and compared; the Piece which has only been woaded will be found blueish, with somewhat of a dull Green; if it have been both woaded and maddered, it will be of a Tan or

or minim Colour; and if it have been neither woaded nor maddered, its Colour will be dunnish between Yellow and Fallow. For Cloths *dy'd* of a minim Colour, the Proof is to be made after the same Manner as that of Blacks.

To know whether Scarlet, or Crimson Cloth have been *dy'd* with pure Cochineal, they are to be boil'd with an Ounce of Allum to a Pound of Cloth. For Cloths of other Colours, the Proof is to be made in the same Manner as that of Blacks and Minims.

Leather, Skins, &c. are also *dy'd* red, blue, Sky-Colour, purple, green, yellow, Orange-Colour, &c.

The red Colour is given by washing the Skins, and laying them two Hours in Galls, then wringing them out, dipping them in a Liquor made with *Ligustrum*, Allum and Verdegreafe, in Water; and lastly, in a Dye made of Brazil-Wood made with Lye. Blue by steeping the Leather or Skins a Day in Urine and Indigo, then boiling it with Allum; otherwise by tempering the Indigo with Red-Wine, and washing the Skins therewith. Sky-Colour is given with Indigo steeped in boiling Water, and the next Morning warm'd and smear'd over the Skin. Purple by wetting the Skin with a Solution of Roche-Allum in warm Water, and when dry again, rubbing them with the Hand with a Decoction of Logwood in cold Water. Green by smearing the Skin with Sap-green and Allum-Water boil'd; and a little more Indigo may be added to darken the Colour. Dark-Green is given with Steel-filings and Sal-Armoniack steep'd in Urine till soft, then smear'd over the Skin; which is to be dried in the Shade. Yellow by smearing the Skin over with Aloes and Linseed Oil dissolv'd and strain'd; or by infusing it in Weld. And Orange-Colour is given by smearing with fustick Berries boil'd in Allum-Water; or for a deep Orange with Turmeric.

Bones, Horn and Ivory, are also *dy'd* of different Colours, viz. Black by steeping Brags in Aqua-fortis till it be turn'd Green, washing the Bone, Horn or Ivory, once or twice with this Liquor, and then putting it in a Decoction of Logwood and warm Water. Red by boiling it first in Allum-Water, and afterwards in a Decoction of Quick-Lime steeped in Rain-Water, strain it, adding to every Pint an Ounce of Brazil-Wood, in which the Ivory, &c. must boil till it be sufficiently Red. Green by boiling the Bone, &c. first in Allum-Water, then with Verdegreafe, Sal-Armoniack, and white Wine Vinegar; keeping it hot therein till sufficiently Green.

Note, That the Refuse of the Bow-Dye given Hogs to feed on, is said to tinge their very Bowels Red. This is a spontaneous Kind of Dying, not unlike that in *Virgil*, who speaking of dying Wool on the Sheep's Backs, by their feeding on properly coloured Vegetables, says:

*Nec varios discet mentiri lana Colores:
Ipse sed in pratis Aries jam suave rubenti
Murice, jam croceo mutabit vellera luto,
Sponte sua Sandyx pascentes vestiet Agnos.*

Ecl. 4. v. 42. Seq.

The Difficulty is to conceive how Lambs should feed on the *Sandyx*, which is a mineral Substance; the same with what is otherwise called *Sandaracha*? It is certain the Poet takes it for a Plant, as was long ago observ'd by *Pliny*: *Animadverto Virgilium existimasse herbam id esse. Hist. nat. lib. 36. c. 6.* This Inference is chiefly drawn from the Word *pascentes*, which can mean nothing else, but that the Lambs browsing on the *Sandyx*, should receive the Dye in their Fleeces from the Aliment. Dr. B — gives us here a Correction which sets all to Rights: For *pascentes* he reads *nascentes*; on which Footing the Tenor of the Passage is this: From that Time there will be no Need of dying Wool with beautiful Colours; but the Sheep shall

have their Fleeces *dy'd* naturally, and spontaneously; some with the *Murex*, or purple Colour; others with the *Luteus*, or yellow; others with *Sandyx*, or red. Those that were already in Being, and had white Fleeces, shall change them *in Pratis* in the Meadows; but all the Lambs shall be *dy'd* beautifully, *nascentes*, at their Birth. *Si credere fas est.*

The Art of Dying is of great Antiquity, as it appears from the Traces of it in the oldest sacred, as well as profane Writers. The Honour of the Invention is attributed to the *Tyrians*, though what lessens the Merit of it, is, that it is said to have ow'd its Rise to Chance. The Juices of certain Fruits, Leaves, &c. accidentally crushed, are supposed to have furnished the first Hint. *Pliny* assures us, that even in his Time, the *Gauls* made use of no other Dyes: It is added, that colour'd Earths and Minerals, washed and soaked with Rain, gave the next dying Materials. But Purple, an animal Juice, found in a Shell-Fish called *Murex*, *Conchylum* and *Purpura*, seems, from History, to have been before any of them. This indeed was reserved for the Use of Kings and Princes; since private Persons were forbidden by Law to wear the least Scrap of it. The Discovering of its tinging Quality, is said to have been taken from a Dog, which having caught one of the Purple-Fishes among the Rocks, and eating it up, stained its Mouth and Beard with the precious Liquor; which struck the Fancy of a *Tyrian* Nymph so strongly, that she refused her Lover *Hercules* any Favours, till he had brought her a Mantle of the same Colour.

Till the Time of *Alexander*, we find no other Dye in Use but Purple and Scarlet. It was under the Successors of that Monarch, that the *Greeks* applied themselves to the other Colours; and invented, or at least perfected Blue, Yellow, Green, &c. For the antient Purple it has been long lost, but the Perfection to which the Moderns have carried the other Colours, abundantly indemnifies them of the Loss. In this the *French*, under the Auspices of that excellent Minister *M. Colbert*, seem to have surpassed all their Neighbours, at their celebrated Manufactory of the *Gobelins*, on the little River *Bievre* (at present call'd the River of the *Gobelins*) in the *Fauxbourg St. Marcel*, at *Paris*.

Among the *Romans*, *Dye-Houses*, *Baphia*, were all under the Direction of the *Comes sacrarum Largitionum*, though they had each their particular *Præpositus*, as at *Alexandria*, *Tyre*, &c. The Dyers of *London* make the thirteenth Company of the City, incorporated under *Henry VI.* consisting of a Master, Wardens, and Livery. At *Paris*, and in most of the great Cities in *France*, the Dyers are divided into three Companies, viz. those of the great Dye, *Du grand et bon Teint*, who are only to use the best Ingredients, and such as strike the surest and most lasting Colours. Dyers of the lesser Dye, *Du petit Teint*, who are allow'd to use the inferior Sorts of Drugs, which only yield false and fading Colours. And Silk, Wool and Thread Dyers. All the high priz'd Cloths and Stuffs are reserv'd to the Dyers of the first Sort; those of less Value, particularly such as are not rated at above 40 Sols the Ell in white, are committed to the Masters of the *Petit Teint*. Blue, Red and Yellow are reserv'd more particularly to those of the *grand Teint*; Browns, Fallows and Blacks, are common to both Sorts. As to Black it is begun by the Dyers of the *grand Teint*, and finished by those of the lesser.

It seems there is a Tradition among Dyers, that *Jesus Christ*, was of their Profession; which we also found deliver'd in the Gospel of the Infancy of *Jesus*, though on what grounded we know not. But it is hence the *Persian* Dyers, notwithstanding all their *Mahometanism*, have chosen *Jesus* for the Patron of their Art; insomuch, that among them a Dye-House is call'd *Christ's-Shop*.

E D U C A T I O N.

EDUCATION, is the Art of bringing up, forming, and instructing of Children.

This Art (which I should rather have called a Science, since it is founded on the most solid Trust, and best established Principles, *viz.* those of Morality, Prudence, and Wisdom) is the most necessary, and advantageous to a civil Society; since on the *Education* of Children, depends entirely, the flourishing State, Welfare, and just Œconomy of a Republick; and the charming Harmony which should subsist between the different Members that great political Body is compos'd of: And as a Prince, who is the Head of that Body, most commonly influences all the other Members, who all endeavour to modelize their Conduct on his, which if irregular, cause but too often all the Disorders which happen in the whole Frame; it is but just, I should begin this Treatise with the necessary Instructions for the Education of a Prince, which is sometimes committed to Persons, who have no other Qualifications for that great Trust, of which depends the temporal Felicity of Millions of Men, but what they borrow, either from their Birth, or from the Credit of potent Friends, or from Court-Intrigues.

There are three Things to be chiefly minded in the *Education* of a Prince, and what he should learn previously to all other Sciences, *viz.* 1. What he owes to that eternal and omnipotent Being from whom he derives all his Power and Authority, and whose Vicegerent he is here upon Earth. 2. What he owes to himself. And, 3. What he owes to his Subjects.

The Duties of a Prince to God, are rather greater than those of his Subjects, since having received a greater Share of Favours, he is oblig'd to greater Acknowledgments, and to more Gratitude; and it is what a Tutor should endeavour to inculcate in his Mind as soon as he takes him under his Conduct. Sensible of his Grandeur, as soon as he is sensible of his Existence; inebriated with the Glory and Majesty of a Throne, and dazzled with the Radiancy of a Diadem, a Prince could easily imagine himself something far above the rest of the created Beings, or at least form'd of a finer Clay; if his wise and discreet Tutor was to neglect to inform him, that all the Pomp and Magnificence he is environed with, is but a deceitful Shadow, which has no other Existence but in our deprav'd Imagination, and which when vanish'd, leaves often nothing behind him, but the eternal Sorrow of having believ'd it other than it was in Reality; and nothing when compar'd to that immense Glory, which environs the Throne of the King of Kings; who is pleas'd to place that radiant Cloud between him and his Subjects, not to inspire him with the extravagant Sentiment of a vain Glory, but to mark the Distance between them and the Throne, and to claim that Respect, which otherwise, they would not be so ready to shew to their Sovereign. That it is always in the Power of the Almighty to dissipate that Cloud whenever he pleases, or to draw a Curtain over that enchanting Scene, and make a Prince thus divested of what was lent him from Heaven, appear such as he is, a Man, like other Men, and perhaps inferior to others, in Merit and Perfection. That therefore, to engage God to continue such signal Favours to him, he should refer all the Glory arising from it, to the Source whence it flows; and make no other Use of the Respect and Submissions shewn to him by the rest of Mankind, than to humble himself the more before him he is indebted to for it, and thereby advance his Worship.

In fact, there is nothing more capable to inspire Subjects with true Sentiments of Piety and Religion, than the Example of a Prince; for when they see him prostrated at the Foot of the Altar of the living God, they easily conceive that there is still something greater, or above him, and still worthier of Respect, since he thinks himself obliged to appear before him in such an

humble and submissive Posture, far beneath that he claims from them as their Sovereign; penetrated with those just Sentiments, they endeavour to imitate, if not surpass him in his Adorations; and follow him to the Temple with the same Alacrity, and in as great Number, as they would do to some publick Entertainment or Parties of Pleasure, not by a Motive of Curiosity to see him, but by one of Piety and Religion. Therefore a Tutor should train up his Royal Pupil, in all the Exercises of Piety and Religion, to render them as familiar and easy to him, as all his other Occupations, even those which are the most capable to flatter his Inclination; he should accompany him every Day to the Temple, and inform him, that when a Prince enters the Sanctuary, he must divest himself, for that Time, of that Majesty, which in other Places claims the Respect of his Subjects, that there should be no other Difference then between him and them, than in the Excess of his Zeal; that there ought to be no other Pre-eminency in the House of God here upon Earth, than that which subsists among the Blessed in the celestial Mansions, and which is founded only on the different Degrees of Perfection; that as a Sovereign is there in a more partiucular Manner in the Presence of God, he should wish to be seen by no Body but by him alone, and if he cannot help attracting the Eyes of his Subjects, it should be rather by his Piety and Devotion, than by the Majesty of his Purple, the Brilliance of the Jewels he is adorn'd with, or his numerous Retinue.

A young Prince should be inform'd likewise, that though his Example can thus very much contribute towards the Advancement of Religion in his Dominions, it does not suffice alone; for as his Subjects cannot all have the Happiness to see him, there must be some other Means found to procure that salutary End; and these Means are to fill the Sanctuary with Persons of a singular Piety and Merit, who should have nothing in View but the Glory of God, and the Salvation of the People committed to their Care, excluding from it all those who have no other Claim to their Initiation among the Ministers of the Altar, than their noble Descent, or the past Services of their Ancestors, or the Recommendation of a Favourite, who presents them to his Prince, because he knows them capable, when raised to that Station, to enter into all his Measures, even those concerted against the Honour of the Prince, and the Interest of his Subjects; who thirst after Episcopacy, not to serve God, but to serve themselves, by spending the whole Revenue of their Bishoprick in Luxury, Pomp and Extravagance; contenting themselves with that Revenue, and the honourable Title of a Bishop, and leaving to others to discharge their Duties both to God and Men. And those, who, like *Simon Magus*, make an infamous Commerce of the Gifts of the Holy Ghost, and find the Secret to open with a golden Key that sacred Gate, which their Ignorance, Imperfections, or Demerit, should have always kept shut against them. It is true, that it is not very easy for a Prince to discover those Wolves, since they generally appear in Sheeps Clothing, to break the easier into the Sheep-fold of the good Shepherd, to make a Prey of the whole Flock; but however, there are some Expedients to be found, against his being so frequently imposed upon and deceiv'd in his Choice; for he should be learned from his very Infancy, that as he is to answer for all the Disorders which may be committed in the Sanctuary, through his Indiscretion, in the Choice of the Ministers, who are at his Nomination, he ought never to prefer those who are recommended to him by Persons whom he knows can be biassed by some human Consideration, without any Regard to personal Merit; but those, and those only who either by himself, or from some competent Judges of an experienced Integrity, and ap-

appointed for that Purpose, he should know truly qualified for the Ministry; which is not so very difficult to know. For a Person, who is a constant Attendant at a Favourite's *Levee*, or is always seen at Court, fawning and cringing to every Body whom he imagines can recommend him to the Prince; or has his Emisaries every where to inform him when a Benefice is vacant, that he may have Time to sound the Alarm, where he thinks he can assemble a Posse to accompany him to the Prince, and countenance his unjust Claim; or promise that when once on the episcopal Chair, he'll favour such and such Party, even against his Honour and Conscience; or is suspected to have made such Promise; such Person is not worthy of a Benefice, no more than him who loves Pleasure, Luxury and Indolence, or is suspected of Avarice, or has a beggarly Family to advance in the World, which must be done out of the Revenue of a Bishoprick.

A young Prince can very well form his Judgment on these Hints; and if he be pleased to take the Trouble to enquire into the Conduct of those Sycophants, whom he has seen besieging the Throne of his Predecessor, after they have been made Bishops, he'll find that it is as irregular and blameable (not to use a worse Expression) as the Means they used to be promoted, and consequently can avoid, after he has ascended the Throne, being imposed upon by such unworthy Subjects; which is seldom the Case of Princes, instructed in their Infancy in the true Principles of Religion, and of the indispensable Necessity of a religious Worship; not only to render to God the Honour which is due to him, but likewise to keep the Subjects in a due Respect and Obedience to their Sovereign; for those who are sincerely and truly religious are always the best Subjects, and consider all that has the least Appearance of Sedition or Revolt, as one of the greatest Crimes they could be guilty of. But when a Prince has learned for first Rudiments of his Education, to disguise his Sentiments in religious Matters, as well as in all others, and that he is not obliged to profess any other Religion, but that which suits best his own Interest, or, to speak in plainer Terms, to have no Religion at all; how can he expect to have faithful Subjects? or that they will not imagine themselves as much authorized to disguise with him, as he pretends to be, to trifle with Heaven. Hence that scandalous Proverb, which has been more or less in Vogue, for some Centuries past, when Mention is made of a Person who has no Religion, *He has the Religion of a Prince*; and of latter Years, several have had the Presumption to affirm, that Princes have no Religion at all; why? because their Tutors have contented themselves with giving them a very slight and imperfect Idea of Religion, and have only taught them of it, what they judged absolutely necessary to save the Appearances; and even made those religious Lessons when they had nothing else to do; the Pupil could easily persuade himself, that Religion was to be ranked among those Things which deserved least his Attention; or that it was only invented as a Mask, to be used on certain Occasions, when he should want to deceive his Subjects, by appearing to them otherwise than he is in Reality. Could it be possible he could entertain a more advantageous Idea of Religion, or be persuaded that he is obliged to profess one, not outwardly only, but with all the Faculties of his Soul; if he has heard nothing else of it? He knows that at certain Times, and at certain Days, his Subjects expect to see him coming in Ceremony to the Temple: He has been used to it from his Infancy; but he does it rather because it is a Custom, which his People would be surprized to see neglected, than by a Motive of Religion.

I would not be understood, as if I pretended, that a Tutor is obliged to mind nothing else, but how to render his Royal Pupil truly religious, and neglect all other Instructions; for I know perfectly well, and we have had few Instances of it, that a Prince can have as well too much Religion, as too little; and I would not have him brought up a Bigot, no more than a

Libertine, since both Excesses are equally prejudicial to the State. A Bigot Prince is insupportable to himself, and to all others; for as he entertains a very advantageous Opinion of himself, he often considers all others as a Texture of Imperfections; the least Neglect in Matter of Religion, appears to him a very great Crime; he is oftner directed, even in the most intricate Affairs, by the Ministers of his Religion, than by those of State; and seldom any Measures are concerted without their Advice. He is often seen at the Temple when he should be at the Council-Board, and environ'd with Ecclesiasticks when he should be at the Head of his Armies; therefore all those Acts of Piety and Religion, practised by a Prince, when the Exigency of his Affairs calls him elsewhere, are approved neither of God, nor of Men; and are as blameable at that Time, as they could be worthy of Admiration at another.

A young Prince (though it be not absolutely necessary, neither is it expected, that he should be a profound Theologian) ought nevertheless to be so well instructed in the Principles of the Religion of his Ancestors, (if it be the true Religion) as to be capable to distinguish Truth from Falshood; and to be upon his Guard, lest he should be surprized by the Novelty of Opinions broached by ambitious Men; who, the easier to impose on the too great Credulity of the Ignorant, and under the specious Pretences of discovering the Truth, hide it under a monstrous Heap of Falshoods and erroneous Sentiments. His Tutor should represent to him those perfidious Zealots, as so many Monsters, whose poisonous Breath infects all those they approach; who carry every where Trouble, Devastation and Horror, and as such ought to be banished from a well civilized Commonwealth. He should also be cautioned against suffering his Subjects to be divided in Matter of Religion, for it most commonly alienates the Hearts of Part of them from their Sovereign; for as he can't profess all those different Religions at once, but must countenance one of them preferably to the others; those who profess the other Opinions which he favours less, conceive a certain Jealousy of him, and often spurred on, besides, by their spiritual Directors, become disaffected to his Person and Government. Hence that Spirit of Party which rages amongst them; and hence those Riots, Tumults, and Seditions, which break forth sometimes into an open Rebellion, and cause the Subversion of the best established Government. Not that I would have a young Prince instructed in the Principles of Tyranny and Cruelty, or persuaded to use violent Means to prevent those Accidents, unless he be forced to it for his own Security, and that of his Dominions; but I would have him learn very well, from his very Infancy (if the Subjects he is to govern be thus unhappily divided) the best Means, tempered with Clemency, and Severity, to bring the wandering Sheep to the Sheepfold; that when he has ascended the Throne he may use them with Prudence and Discretion. The Way of Instruction is the best that can be followed on such Occasions; and that Instruction does not consist wholly in the Preaching or Writing in Defence of the Religion of the Prince, but likewise in the good Example and regular Conduct of the Ministers of that Religion: Therefore it behoves a Prince, who desires to take off all Pretences of Disputes or Differences in religious Matters among his Subjects, to take a particular Care that none should be chosen for Ministers of the Religion he professes, but Persons of an unspotted Character, of an exemplary Life, and consummate Knowledge, since Sectaries have always took for Pretext of their Separation, the Disorders and Corruptions of the Sanctuary. If those religious Divisions have raged in a Prince's Dominions long before he ascended the Throne, and that to attempt the Reformation of such Abuses, which are rooted in, would be exposing his sacred Person and Government to some very imminent Danger (for Fanaticism, Enthusiasm, &c. have never been founded on the same Christian Charity and Meekness on which the Apostles had established the Church

of Christ) he must not tyrannize over the Consciences of his Subjects, but suffer them to profess the Religion they have been *educated* in, provided it be not a Bar to their Loyalty; and that though they be divided from the rest in their Principles, they might be supposed, by their Conduct, all united in their Affections to their Prince. Letting them know at the same Time, that they should be contented with that Indulgence, without their endeavouring to encroach farther; by Means not at all consistent with the Honour of the Prince and the publick Security, and quite contrary to the true Doctrine of the Gospel; forbidding likewise their Pastors to meddle with any Thing else but with the Instruction of their Flock, under the Penalty of being silenced, and deprived of some of the Privileges they have in common with the rest of the Subjects. Their Punishment should extend no farther, unless animated by a fanatical Zeal, they should attempt to disturb the publick Tranquility by riotous Assemblies, for then a Prince is authorized, by all Laws divine and human, to employ the Power God has intrusted him with to repel Force by Force, and to chastise severely such Subjects when they revolt against him, even by a Principle of Religion, as they are pleased to call it; for I'll never persuade myself, that any sort of Religions will ever prompt Subjects to Rebellion, since Religions must be all founded, at least, on Morality; and those which dictate Maxims contrary to it, are but a Shadow of Religion, or a Farce. It is scandalous to pretend that Religion can justify a Revolt; or that what has been calculated to bridle our Passions, should give a Sanction to it: And it is equally scandalous to accuse a Prince of Tyranny, when he refuses to receive Laws, or be directed in his Belief by his Subjects; since he has as much Right, if not greater, to claim Liberty of Conscience as they have; and can as justly punish them for assaulting the Sanctuary he has took under his Protection, as he has if they were to attack the Throne.

But if a Prince, at his Accession, finds all his Subjects united in the same Belief, he must use all Means to prevent their being perverted by new Doctrines, and erroneous Opinions; which to effect, he should recommend Vigilancy and Care to all Pastors; and order them to haunt those Wolves in Sheep's Cloathing at the very first Attempt they make to surprize the Flock, and even to employ the secular Power, if wanted, on such Occasions.

Our Royal Pupil having been thus instructed in his Duties to God, must learn next his Duty to himself; or to speak in clearer Terms, what he must know to be esteemed a perfect and accomplish'd Prince, by the whole World. The chief Articles of his *Education*, on this Respect, consist first, in being taught how to restrain his Passions; 2d, the Maxims of a just and wise Government: and 3d, the first Rudiments of all Arts and Sciences.

To pretend that a Prince is born without Passions, would smell too much of that Adulation which has always been abhorred even by the wisest Princes themselves; since all Men, without Distinction, come into the World subject to the same Infirmities, being all sprung from the same vitiated Source. And there is, but too often, no other Difference, in this respect, between an illustrious Blood, and a spurious one, than that the one is more loaded with Passions than the other. And if not, and it happen, that a Prince should be born but with few Passions, it is, notwithstanding, the Duty of a Tutor, to shake those Passions, in his Royal Pupil, lest by disregarding, or over indulging them, they should acquire daily new Strength, and gaining in Process of Time an Ascendency over his Reason, become so predominant as to be impossible ever after for him to conquer them.

The Passions a Prince is most commonly subject to, are, Ambition, Vain-glory, Pride, Luxury, and sometimes Avarice, or Love of Money, and Ingratitude. The Ambition, I mention here as a criminal Passion to be shaken in a Prince, from his very Infancy, is considered by an infinite Number of Persons,

as a very noble one, and the surest Foundation of the Glory of a Nation. I know as well as they, that the Ambition of a Prince, confined within just Limits, contributes much towards the Advancement of its Glory, the Security and Felicity of his People, and the keeping all his Neighbours in Awe: That without it, he is but very little respected by his Subjects, and is despised by his Enemies; since the Want of a just and reasonable Ambition in a Sovereign, is always accompanied with Pusillanimity and Indolency; but that Ambition which I condemn as criminal, is one, which through the too great Indolency of a Tutor for his Royal Pupil, or on any other Consideration whatever, has been suffered to shoot forth the strongest Roots within his Mind, and thereby gaining a greater Ascendency over him as he advances in Age, becomes at last so predominant, especially when he knows himself to be entire Master of his own Will, and that no Body dares, or cares to controul it, that he leaves it in a full Career, and to be the sole Director of all his Enterprizes, even against the Dictates of his own Reason, and all Sorts of Justice or Equity. Hence that immoderate Desire of extending the Limits of his Dominions by unjust Conquests, and the Usurpation and Devastation of those of the other Princes his Neighbours, to the Oppression of his Subjects, and the entire Ruin of Millions of Families; who curse the fatal Moment they were born Neighbours of such a publick Oppressor: Hence the Maledictions he is loaded with both by Friends and Foes, except the few Sycophants his Throne is environ'd with, who to gain his Favour, applaud publicly his criminal and destructive Projects, which they must condemn in their Hearts.

A wise and discreet Tutor, who has nothing in View but the Perfection of his Royal Pupil, tells him, that Ambition is necessary to a Prince, when directed by Equity, Discretion, or Prudence; that the chief Ambition of a Prince should be to render his People happy, by making his Government easy and supportable to them; that all other which has not that Object, though called by that Name Ambition, is in Reality a mere Tyranny: That Ambition understood in a Sense different from that, which is founded on nothing else but new Acquisitions and Conquests, (though countenanced by a barbarous Custom which has prevailed among Princes) has invented the pompous Title of Conqueror, to cover publick Theft: That the Ambition of recovering what has been unjustly dismembred from his Dominions, by such publick Robbers called Conquerors; or of defending them against their Invasions; or of maintaining the Rights of his Subjects when invaded; or of obtaining an adequate Satisfaction, for the Injuries they have received from other Nations, is a just and noble Passion, since acting otherwise, would be to him Pusillanimity, if not Cowardice; and that his Ambition should never go beyond those just Limits.

In fact, a Prince who is thus ambitious, is adored by his Subjects, and beloved, respected, and dreaded by his Neighbours. He is adored by his Subjects because they enjoy under his happy Government, all the Felicity they can wish for in this World, without being afraid of its being disturbed by the frequent Alarms which the extravagant Ambition of a Conqueror exposes his Dominions to from his Neighbours; for as those Neighbours can never depend even on his most solemn Protestations, and are convinced by an awful Experience, of his being always ready to attack them whenever Occasion offers; they also, on their Side, make use of all the Opportunities of attacking him to Advantage, and of even surprizing him unawares; so that his Subjects seldom enjoy a profound Peace, but on the contrary are almost always on the *qui vive*. He is beloved by his Neighbours, because we are naturally inclined to love those who will not do us any bad Offices, especially when we know they can do it, and it is their Interest to do it. Respected, because every body, sometimes even the greatest Ruffians, admire Virtue and Equity wherever it is to be found; and dreaded because they knew he could not be provoked with

with Impunity ; and that he cannot want Means to be revenged of an Affront, since besides his Valour, and the Justice of his Cause, his Subjects, who are sensible of his undertaking nothing, but when obliged to it, either to assert their Rights, or to protect their Life, Liberty and Fortune, contribute freely, and without the least Compulsion, all in their Power, towards making so just an Enterprize succeed.

Pride is also a Passion, almost inseparable from the Throne ; and all that it is environed with, as Pomp, Grandeur, Splendor, and Magnificence, help to feed that Passion ; but above all, that perfidious, and constant Attendant of Princes, *Flattery*. In fact, what can better persuade a Prince that he is something far above the rest of Mankind, than to hear himself call'd every Day, *Le plus grand Roy du monde*, the greatest Monarch in the World ? For this monstrous Piece of Flattery is not peculiar to one Nation alone, but is common to all ; what Notions must he entertain of himself, when he sees there is no other Difference between the Respects shewn to God and that shewn to him, than those shewn to him are rather greater ? But he would entertain other Notions if he was taught from his Infancy, that *that* monstrous Colossus of Grandeur, which may chance in Process of Time to swell him up with Sentiments of Pride and Vanity, and which he begins to be environed with, has no other Foundation, than the Caprices of Fortune, which is a Jilt, and the Will of his Subjects, which is not always to be entirely depended upon ; that therefore it would be dangerous to be inebriated by those Fumes of Vain-Glory, which at last, may darken his Reason so as to make him be buried under the Ruins of that sumptuous Edifice, through the Inconstancy of Fortune and that of his Subjects. That several Revolutions of that Kind which have happened in the best established Monarchies, have in all Ages, confirmed that undeniable Truth ; some Examples of that Kind having happened, perhaps in the Dominions the Prince, to whom those Lessons are given, is to govern.

There is another Sort of Pride Princes are often subject to, called *Haughtiness*, which our Royal Pupil must learn to avoid : It is not necessary that a Prince should be too familiar, lest his Subjects should abuse his too great Familiarity ; but he must not keep himself at so great a Distance, as to render his Throne inaccessible, like those of the Eastern Princes, nor make his Subjects afraid to see him ; though they must be kept at a due Distance from the Throne, with a certain majestick Air in the Prince, mix'd with a becoming Popularity, the one claiming their Respect, and the other inspiring them with Love. He must even use a Kind of Reservedness with his Favourites, who often, too much elevated with the Honour of their Prince's Confidence, forget themselves so far as to abuse it, assuming a certain Authority over him, disguis'd under a Shadow of Respect to blind him, that he may not perceive, that they leave him but the bare Title of a King, while they usurp the whole regal Power.

A third Kind of Pride, far more dangerous than the two others, is when a Prince thinks it beneath him to mind the Government of his Dominions, or to enter into the Detail of his Affairs. Our Royal Pupil should be very well cautioned against such Insatiation capable to cause the Ruin of the most flourishing Empire ; and taught that it is never beneath a Prince, let him be ever so great, to be inform'd by himself, without depending entirely on the Probity, Dexterity, Prudence, &c. of Ministers or Favourites, of all that concerns his own Security, and the Interest of his Subjects.

Luxury has always been the favourite Passion of Princes, few excepted, though very criminal in itself, and always attended with a vast Number of Inconveniences ; and ought to be represented as such to a young Prince, by his Tutor, who cannot use too much Circumspection in that Case ; for as *Luxury* flatters the sensual Appetite, which is as sharp, or rather sharper in a Prince, than in any others ; since he

is continually environed, and can have, according to his Wishes, all that is the most proper to excite it ; the Tutor must blunt that Appetite, by his salutary Lessons, on Temperance, Moderation, and a noble Frugality ; keeping from him all the Objects capable to corrupt his Innocence, and debauch those Principles of Virtue he is *educated* in ; representing to him often, that Debauchery of any Kind, is rather more criminal in a Prince than in his Subjects, since his Example, which is ordinarily followed, especially by those who approach his sacred Person, is the Occasion of all the Debaucheries they commit ; for which he is to answer at the Tribunal of a King greater than himself, who judging otherwise than we dare to do, will make no other Difference between the Crimes of a King and those of his Subjects, than in punishing the Crimes of the Prince with more Severity than those of the Subjects. That a vicious Prince, though all his Subjects seem to be silent on his Vices, is nevertheless applauded by none but those who are as vicious as himself ; which is rather a Condemnation than an Applause ; since the Irregularity of their Conduct, so much like his, is continually reproved by those whose Office is to inveigh against the Corruption of Manners, and by the Regularity of that of the Virtuous.

The Sort of Luxury Princes are more ready to indulge themselves in, and which they make the less Scruple of, because passed into Custom among them, Time out of Mind, is that of Women ; far from making the least Difficulty of keeping two or three Mistresses, more or less, they imagine it a Kind of Duty incumbent on them, and would, as I suppose, believe it an Imperfection in them to keep none. And what is the more unaccountable, is, that the Mistresses of Princes, even Persons of the first Rank, far from being ashamed of their Prostitution, imagine it an Honour ; and that Persons of the strictest Virtue, have the scandalous Complaisance to encourage them in it, by in some Manner worshipping their Prostitution. For my Part, I see no other Difference between the Strumpet of a Prince, and that of the meanest of his Subjects, than in the Impudence, which is far greater in the Strumpet of a Prince, than in that of his Subjects. For is it possible that the Dignity of the Throne may colour, or justify a Guilt in Persons who approach so near it, when it cannot do it in the Prince who sits upon it !

Therefore the Scandal of such Conduct, should be painted to a young Prince by his Tutor, in the darkest Colours, to deter him from imitating it ; keeping from him all Persons, who by their Allurements or vicious Inclinations, could debauch his Principles. He should also be given to understand, that those who plunge themselves into those Excesses of Voluptuousness, impair their Health, exhaust their Strength, and render themselves incapable to give Heirs to the Throne, indued with that Strength and Vigour necessary to undergo all the Fatigues inseparable from the Quality of a Sovereign : Besides the other Inconveniences that Sort of Debauchery is attended with, it happens but too often, that while Princes are in the Arms of those Prostitutes, Generals of Armies are made, who have neither Courage nor Experience ; Priests introduced into the Sanctuary of the living God, with no other Recommendation than their Assiduity in worshipping *Baal*, or criminal and shameful Indulgency in palliating the Disorders of a Court ; Ministers set at the Helm, who, ignorant of the Dangers, expose daily the Vessels of the Republick to the most imminent Ones ; and Magistrates placed on *Astrea's* Tribunal, because they are known to be always ready to prefer the Dictates of those by whom they have been promoted, to those of their Conscience. The Wealth of a Kingdom is lavish'd away to furnish with Profusion the monstrous Extravagancies of those *Jezebels*, or to enrich them and their beggarly Relations, who are often promoted to the most eminent Posts both in the Church and State, on no other Consideration, than that of their being related to a Person who is a Scandal to her Sex ; so that it may be reasonably

bly said, that their Honour springs up from Filth and Corruption.

We may very well suppose, that these salutary Instructions were given to the present King of *France*, by his learned, wise and virtuous Tutor, since none of his Predecessors, since *St. Louis*, has ever shewn a greater Aversion for Luxury of that Kind, than that great Prince, whose unblemish'd Virtue, and conjugal Chastity, make one of the principal Ornaments of his Throne. But though so great an Example is worthy of our Admiration and Applauses, it is very little followed; for we see but too often, young Princes, while yet under the Conduct of a Tutor, abandon themselves to the Gratification of their Sensuality, and spend in the Arms of a Mistress, a Time which should be spent in learning how to govern well their Subjects.

There is another Kind of Luxury which is very oppressive to the State; I mean that which consists in the Profusion of a Prince's Table, while perhaps, a vast Number of his Subjects want even Bread: I know very well that it cannot be expected that the Table of all Princes should be as frugal as was that of *Charles XII.* King of *Sweden*, neither is it proper it should; but I know likewise that some Economy or Moderation might be used in that to render it less expensive, and what is spared from it applied to the Relief of the most distressed among the Subjects; especially those who are reduced to Poverty for having served their King, or their Country.

To inspire a young Prince with Sentiments of Frugality and Economy, he should be sometimes conducted to those Places, where Indigency appears without Disguise, and attended with those Circumstances capable to excite both his Compassion and Generosity; for it happens often that a Prince, otherwise inclined to Compassion, and ready enough to relieve his oppressed Subjects, is encouraged in his monstrous Expences and Profusions, by those he is environed with, who represent his Dominions to him, as an inexhaustible Source of Wealth and Treasure, and that it is impossible he should spend so much as his Subjects are in a Condition to supply him with, without distressing themselves; though perhaps, at the same Time, the Stones of his sumptuous Palaces, are cemented with their Blood, the vast Number of different Dishes his Table is covered with, seasoned with their Tears, and the Sound of the Instruments his Palaces echo with, accompanied with their Sighs.

I take no Notice here of Drunkenness, which is a sort of Debauchery, which very few Princes are addicted to, and which our Royal Pupil will soon be persuaded to hate, when he hears that it reduces Mankind to a Condition worse than that of Brutes, since it deprives them of the Use of all their Faculties, both rational and sensitive.

A young Prince should always be a perfect Stranger to Avarice, and if it was perceived by his Tutor that he has the least Inclination to it, he should represent it to him, as a Vice which renders the meanest Person odious to the whole Creation, much more a Prince, who should consider Money but as a Piece of Clay, which Nature has disguised to deceive our depraved Senses, and which Corruption has rendered necessary among us. Why should a Prince love Money, or oppress his Subjects to heap up Treasures, when he can never be poor while his Subjects are rich; but on the contrary, if by his too frequent, and too heavy Impositions and Taxes, he endeavours to reduce them to Beggary, with the Design, either to shut up in his Coffers the Wealth he has thus unjustly ravished from them, or to lavish it away among his Minions or Favourites, he exposes himself to be as poor in Process of Time as they are, without any hope of Relief; since he has reduced them to the Impossibility of succouring him; having deprived them of the Means of even assisting themselves, in the Distress he has reduced them to. Why should not a Prince give with one hand what he receives with the other; or why should he be anxious after Treasures, since the Treasures of his Subjects will be his

own as long as Liberality shall be one of his favourite Virtues; for they are always more ready to give to a liberal Prince, who seems to value Money no otherwise than it is necessary to supply the Wants of the State; and would even exhaust their whole Substance for such a Prince, with greater Pleasure, than they would pay the least of the Taxes imposed by an avaricious one. Besides, the more a Prince is addicted to Avarice, the greater is Misery and Poverty in his Dominions, for the Great and Rich, shutting up their Purfes after his Example, and never opening their Hands for a generous or charitable Action, those deprived of Fortune's Favours, must languish in the most deplorable State, and perish at last.

It seldom happens that an avaricious Prince has any good Quality; for Avarice is always attended, in a Prince, with Pusillanimity, Ignorance, Tyranny, and Oppression. He, whose whole Felicity consists in his Treasures, will hardly expose a Life in the Field which is buried in those Treasures, and would not run the Risque of losing it twice, that is to say, by the Arms of the Enemy, and by Robbers, he is always afraid of carrying off his Treasure in his Absence. There is no Glory in his Opinion, comparable to that of being accounted rich, no Science so profound as that of telling Money, or of raising it. Hence those publick Sponges and Leaches employed by him, for Instruments of his Tyranny and Oppression, and whose Want of Humanity and Compassion is the only Qualification requisite to be employed by him, in those Deeds of Iniquity.

To avoid those great Inconveniencies, none should be preferred to be the Tutors of a Prince, but those who are very well known capable to inspire him with Sentiments of Liberality, as well by their Example, as by their Lessons; for it is almost impossible that a Tutor should infuse into his Pupil, Principles quite different from his own: For if even he was to give him the best Lessons on that Subject, he would soon contradict them by his Conduct; and if he was to persuade his Pupil to give with a profuse Hand, it would be either to him, or to those who he has recommended for Objects of his Liberality, which would give the Prince some Notions, that there is still a greater Pleasure to receive than to give; since his Tutor himself is always readier to receive, either by himself or his Friends, than to give.

But however, notwithstanding all I have said in Commendation of Liberality in a Prince, that Liberality can sometimes degenerate into Prodigality, which at first appears a sort of Paradox, since what is Prodigality in others, whose Fortune is limited and may be exhausted, can never exceed further than Liberality in a Prince, whose Fortune has no Limits. But this supposed Paradox will be soon enucleated; if we consider, that all that a Prince gives, on no other Consideration than to gratify the voracious Appetite of Courtiers and Favourites, let the Gifts be ever so small, is Prodigality; since it is squandering away publick Money which could have been applied to some Purposes advantageous to the State. That Money, for Example, had served for a Gratification to some brave Soldier, who has been maimed, or spent the best Part of his Life in the Service of his Prince, and the Defence of his Country; or to relieve a Family left destitute by their Chief having been carried off in the Field; or to succour whole Countries, which have been exposed to the Ravages, Plunder, and Devastations of the Enemy. What other Name but Prodigality can be called what a Prince gives to those who oppress and plunder his Subjects?

Ingratitude is a Vice abhorred both by God and Men, for which Heaven has not Punishments severe enough, and against which Nature itself revolts; and if that Vice is unpardonable in a Subject, how much more in a Prince, who cannot forget the Services done to him, without renouncing his own Interests, and rendering himself odious to the whole World: For though a Prince can claim as a Duty, several Kinds of Services from his Subjects, there are some other Ser-

vices, which we may very well call of Supererogation, which a Subject can abstain from, or even refuse, without a Breach of Duties, or rendering himself guilty of Disloyalty; such as refusing to expose his Life, or spending his Fortune in the Service of his Sovereign, and when he has the Generosity to do one or both those Services, what Marks of Gratitude is he not entitled to from his Prince? and what Monster must that Prince be, who scandalously refuses, or even neglects giving those Marks of his Gratitude? For our Royal Pupil must be informed, that it is a very erroneous Opinion to imagine, that his Subjects owe every Thing to him, and he owes nothing to his Subjects; on the contrary, those Services abovementioned, are a greater Mark of Liberality in his Subjects towards him, than the greatest Reward for those Services, could be in him of his Liberality, since on those Occasions, his Subjects sacrifice for him all they have dearest and the most precious in this World; when as in rewarding them, even according to their Desire, he loses nothing of his Power of doing the same Thing to an infinite Number of other Persons, and still remains as powerful as opulent, and better beloved and respected, than if he had never done it: For where are the Subjects who would serve, without being compelled to it, a Prince, who takes but little or no Notice of their Services? A Sovereign who engages his Subjects to his Service, by Rewards and Gratitude, acts as a good Prince, and he who exacts those Services as due to him, ought to be considered as a Tyrant; the one treats them like his Children, and the other like his Slaves.

The sole Motive which often induces the Tutor of a Prince to indulge him in the Gratification of his Passions, is to oblige a Minister, who, to engross to himself the whole Government of the Kingdom, and to leave but the bare Title of King to his Royal Master, persuades a Tutor to keep him in Ignorance, by suffering him to run a full Career throughout all the Pleasures, Pastimes, or Diversions a Court can afford. Thus a Prince ascends the Throne, utterly unacquainted with the Affairs of his Kingdom, and in Process of Time, is forced to do by Necessity, what he did at first through Inadvertency, and want of Judgment, Discretion and Prudence: His Intentions are very good perhaps, and he would sometimes set himself at the Helm, but being unacquainted with it, he is soon obliged to desert it, and to continue to trust to his Ministers, who govern as it suits best their own private Interest, and not the Honour of the Prince, and the publick Good. Tutors, who have that criminal Complaisance for Ministers, cannot be too severely punished; for when the Education of a young Prince is committed to their Care, it is with the Design they should make him fit to govern, and not to be governed; that they should learn him all he must know to sit easy on his Throne, and make his People happy; and not to render him a King of Tapestry, or the Shadow of a King; who has no other Motion but what he receives from others.

Besides the Art of governing well his Subjects, a Prince should also learn the first Rudiments of all other Arts and Sciences, that he may have a Taste of them sufficient to inspire him with the Desire of making them flourish in his Dominions; for there is no greater Mark of Ignorance and Stupidity in a Prince, than to see the Arts and Sciences in a languishing State, or buried in the Dust in his Dominions; whereby his Reign may reasonably be stiled the Reign of Ignorance. The greatest Princes, in all Ages, have always considered as one of the greatest Ornaments of their Crown, the Encouragement they gave to Learning and to the Learned. The Emperor *Augustus*, and *Lewis XIV.* King of *France*, both equally brave, and equally great, have surpassed all other Princes, in that Kind of Magnificence and Liberality; both have called near their Persons from all Parts of the World, the most learned in every Art or Science of the Age they lived in, and both have encouraged and rewarded them with a profusely liberal Hand, according to their Knowledge and Skill. *Lewis XIV.* was indebted for his great Taste

of Learning to his natural Genius, rather than to the Advantages of his Education; not that he wanted the best Masters in every Art or Science, but they were afraid to impair his Health, by captivating too much his Mind; but however, his great Genius supplied in him the Want of a liberal Education; for he could judge pertinently of the best Compositions, and of the most finished Pieces of Workmanship, of all Kinds, as if he had studied, for a considerable Time, under the best Masters. He was a good Theologian, Philosopher, Physician, Musician, Painter, &c. by the pure Strength of his Imagination, without any other Succours. Several other Princes in that Kingdom, as well as in others, have had a far better Education; but have not made the same Advantage *Lewis XIV.* did of his natural Talents. Even at present, Learning is entirely disregarded by most Princes, and seems to be hidden, together with Bravery and Courage, in some Places where they are not to be found by the Great. For I have just Reason to believe, it retains yet, especially here in *England*, a kind Correspondence with Persons of an inferior Rank, who prefer the Ornaments of the Soul to the Pomp and Magnificence of a Court; and would rather be found poring on a Treatise of Theology, Astronomy, Geometry, &c. as becoming better their Rationality, than to be seen disguising it under some ridiculous Mask or other. Scandalous Pastimes, which are but too much encouraged by the Princes of this Age, and against which a young Prince should be inspired with an inveterate Hatred, since they are infinitely beneath the Majesty of his Throne; and change the Purple, otherwise so respectable, into the ridiculous Vestment of a Farcer. The *Eastern* Princes are commendable in this, and would be ashamed to appear under such Disguises.

A young Prince who will be instructed in his Duty to his Subjects, must learn every Thing that is necessary to render them happy; and first, never to make Choice of Ministers, who are not ready, at all Times, to prefer the publick Good to their own private Interest; never of those publick Oppressors, who make no other Use of the Confidence of their Prince, than to render his most faithful Subjects suspect to him, nor of the Power they are invested with, than to oppress the Nation: Who deprive their Royal Master of his best Servants, to have them reimplaced by their own Creatures: Who introduce Simony into the Sanctuary, Venality at Court, Bribery and Corruption in the Legislature: And who make for themselves and Family a monstrous Fortune of the Spoils of the Subjects: But those honest and disinterested Ministers, who accept that eminent Post, on the single and honest Consideration of having a better Opportunity to serve their Country: Who never accept it, but when their Prince, sensible of their extraordinary Merit and Capacity, obliges them to it: Who never receive any signal Favours or Gratifications from their Royal Master, but to have Occasion to distribute them among those of his Subjects who deserve them best: Who procure the Advancement of none but Persons of Merit: Who are deaf to all Intreaties and Solicitations of Relations or Friends, if the Person recommended has not a Capacity answerable to the Post he wants to be promoted to: Who are as good Economists of the publick Funds, as of their own; and never disburse any of that Money, but as the Exigency of the Affairs requires it; or to maintain the Honour and Credit of the Nation; or to defend its Rights and Properties; or to make Commerce flourish, by encouraging Artificers and the Manufactures; or to release the Distressed during publick Calamities, &c. Such are the Ministers which a young Prince must be advised to chuse whenever he is to ascend the Throne; for then he may depend on having his Affairs managed to the general Satisfaction of his People; and of not being exposed to the Reproaches and injurious Reflections a wicked Ministry is aspersed with.

It is almost impossible a Nation should be truly happy, which is divided into Parties: Therefore a young Prince should be very well instructed of all the Means

Means to prevent those Party Divisions in his Dominions, if there are yet none when he ascends the Throne; or to re-unite all Parties, if he finds his Subjects thus divided. As those Parties proceed from a Kind of Difaffection in the Subjects, either for the Person of a Sovereign, or for his Government, and sometimes for both; and as it is almost impossible a Prince should please every individual Member of the Republick, it is therefore almost equally impossible for him to prevent Parties being formed among his Subjects; since those who approve of his Government, and love his Person, will never agree with those who condemn the one, and hate the other. There are Nations more subject to those Party Divisions than others; and some, which a Prince, let him be ever so good, ever so just, and ever so great, will never please long; nor his Government, was it even newly modeled every Day, ever be approved. What must a Prince do who has the Unhappiness to govern such Subjects? have Recourse to violent Means to render them sensible of their Duty to their Sovereign? No; abandon himself to a servile Complaisance, and be entirely under the Direction of their ridiculous Caprices, or follow blindly the extravagant Inconstancy of their Mind? No; but he must be equally divided between a just Severity, and a becoming Complaisance and Meekness; punishing with Severity the greatest Sticklers in those domestick Divisions, to deter others from following their Example; and pardoning those who have been engaged in those Party Divisions (either through Ignorance, or by a pure Complaisance of a Friend, or by the Impetuosity of their Genius, without any premeditated Malice, or Difaffection to their Prince or his Government) to gain their Hearts, and dissuade them, by such an Act of Clemency, from engaging another Time into such Dilemma's, which, perhaps, would prove at last fatal to them. But as the Rabble is never better pleased but when they find an Opportunity of declaring in Favour of some Party or other, and that such Declaration is always attended with Tumult, Confusion, and Disorders, and but too often with fatal Consequences; the Rabble, besides, being always made the Tools of Party, when the Chiefs of those Parties want to throw the Republick into a Ferment; that Rabble should never be encouraged, but always severely punished, when found committing Disorders, under Pretence of espousing a Party, let the Party be what it will; for as the Rabble has no Fund of Bravery or Courage, but like Brutes follow the first Impulsions of their Brutality, that first Impetuosity is soon daunted, when it meets with a severe Opposition. A Prince should, also, forbid making any Party under his Name, since it is encouraging or strengthening those formed against him; and should always declare that he will have no other Party formed in his Favour, but that strict Union which should subsist between him and his Subjects, to oppose the common Enemy.

A young Prince must also be forewarned against giving the least Occasion for his Subjects forming Parties against him; such as vexing and oppressing them with burthensome, though necessary Taxes; invading their Privileges and Liberties; suffering his Ministers, or Favourites, to plunder them of their Properties; advancing to the most eminent Posts in the State worthless Wretches, who thro' their Want of Experience and Knowledge in the Management of publick Affairs, make shameful Blunders, which eclipse the Glory of the Nation, and render her despicable to her Neighbours. Such irregular Conduct in a Prince, is certainly capable to excite the just Complaints and Murmurs of his Subjects, to alienate their Hearts from him, and make them wish for a Change, in hope of being better treated; especially when after humble and repeated Remonstrances, the Prince refuses obstinately to redress their Grievances. For, in fact, Subjects are not to be led, like Slaves, with the Whip, but guided or governed like free Men; who willingly, and without the least Compulsion (though sometimes not through an Excess of Prudence) have

parted with Part of that Liberty they had received from Heaven, in favour of another Man like themselves, which join'd to his own Liberty, compose that great Freedom he enjoys, so different from the rest of Mankind, and invests him with that Authority he exercises; which however is not of so vast an Extent, as to be not controulable, by the Laws which the Subjects have caused to be made, to secure that Part of that Liberty they have reserved to themselves; that there might be yet a wide Difference between them and Slaves, who have lost theirs entirely. Neither is the Prince to be tied with golden Chains on his Throne, or directed in all his Actions by his Subjects, for then he would be nothing else but an honourable Slave himself; but as his Subjects have thought fit to place him above them, to be their Prince and Governor, they are obliged to let him act as such, in all Things which are not contrary to the fundamental Laws of the Kingdom, without sacrilegiously intruding on his Authority as their Prince, or pretending to direct his Councils, or controul all his Measures, even the best concerted for the Advancement of his Glory, and the Security of his Dominions; for then it is no Obstinacy in a Prince to appear deaf to the unjust Clamours of his Subjects, and firm in his Resolutions; nor Tyranny to punish severely the most clamorous.

The Tutor of a Prince should take a great Care to cultivate the pacifick Dispositions of his Pupil, especially when he finds that those pacifick Dispositions do not proceed from a natural Pusillanimity or Cowardice, but from an Inclination of making his People happy; since, in fact, nothing contributes more towards the publick Felicity, than a pacifick Prince; Peace being always attended with Liberty, innocent Mirth and Pleasure, Opulence and Plenty; whereas War, on the contrary, draws always after her, Ruin, Oppression, Horror, Devastation, Sacrilege, Murder, Famine, and Sterility; even the most prosperous War, is always attended with some of those Calamities more or less. Therefore it is a very great Imprudence in a Prince to listen to the pressing Solicitations of his Subjects for a War, when he can avoid it with Honour; for it is not reasonable to suppose, that they would be at the vast Expence of a War, if they had not some Design against their Sovereign, if it was but that of clogging the Wheels of his Government. But if they ask for it, actuated by any other Motives, as by a national Antipathy or Hatred, to shew themselves invincible, &c. those Reasons are so ridiculous and childish, that a Prince who has the Weakness to mind them, must be answerable for the ill Success of a War undertaken under such scandalous Pretences; for it is the greatest Folly a Nation can be guilty of to imagine herself invincible, because perhaps, by a Superiority of Number, and in Confederacy with the whole World, she has gain'd a few Advantages over a single Nation who was oblig'd to stand by herself, when that Nation alone by her Intrepidity and Bravery, has gain'd twenty Advantages for one of theirs, against such formidable Confederacy, and has an hundred Times baffled their best concerted Enterprizes. A Prince should let the ignorant Part of his Subjects understand (I say the ignorant Part, for the most sensible Part of a Nation would scorn to entertain such ridiculous and extravagant Notions) that Bravery and Courage are of no Nation in particular, but is to be found every where; and that Fortune, on which depends in Part the Success of a War, is as inconstant in the Fields as any where else.

Notwithstanding these pacifick Maxims our Royal Pupil is to be instructed in, his Tutors must take a particular Care to inspire him with Courage, and have him well vers'd in the military Art, that he may be capable to command his Armies in Person, which all Princes should consider as a Duty incumbent on them, since nothing is more capable to excite the Courage of the Soldiers and make them behave like gallant Men, than the Presence of their Prince. Formerly, Princes were more jealous of that Glory of commanding their Armies in Person, than they have been since, dis-

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charging themselves of that great Trust on their Generals, and waiting for the Event of a Campaign amidst the Pleasures of their Court; and if the Campaign proves glorious, it is the Prince that has conquer'd; but if it is attended with ill Success, the Disgrace is thrown on the General. These are Abuses which should be reform'd, for as the Honour of the Prince, or his Ambition, is but too often the Occasion of a War, it is but just he should share the Fate, fortunate or unhappy, it is attended with.

From these Maxims for the *Education* of a Prince, we'll pass to the *Education of the Nobility*, which ought to be as carefully minded as that of Princes; since the Nobility of a Nation should make one of the greatest Ornaments of a Throne, which can't be without the Advantages of a polite *Education*; for it must not be imagin'd that that great Lustre which should reflect on the Throne, consists intirely in the illustrious Blood which runs through the Veins of a Nobleman, in his vast Estate, in his pompous Equipage, in the Number of his Servants, the Plenty of his Table, the Delicacy of his Dishes, the Variety and Rarity of his Wines, &c. For the illustrious Blood excepted, a rich Scoundrel rais'd from a Dunghil, can make as fine, if not finer Appearance, and the Difference between both must be taken from a noble Blood illustrated with an advantageous *Education*.

I say a noble Blood illustrated with the Advantages of *Education*; for what Honour can arise to a Person from his noble Blood, without those Advantages? How can he boast of having sprang from an illustrious Source, and number among his Ancestors a great Number of Heroes, of holy Sacrificators, of impartial Judges, of true Patriots, of disinterested Ministers, if he does not endeavour to render himself capable to support the Reputation they have acquired, by signaling himself as they have done, in that Profession he proposes to embrace? These are the first Sentiments which a Tutor should take care to inspire his noble Pupil with. He has no Need to repeat often to him the Nobility of his Extraction, to convince him that he is in Fact born a Nobleman; the Sumptuousness of his Palaces, the great Number of his Servants, the vast Respect they approach him with, and his Title being at almost every two Words sounded to his Ears, has soon learn'd him that Truth; but he should pass in Review before him, those of his Ancestors who by their extraordinary Merit and Virtues, have most contributed towards acquiring him that Title, and give him to understand at the same Time, that unless he enters the same Career, and appears in it with the same Glory and Reputation, that Title which he bears, and was in them a Mark of Distinction, is to be one in him of Scandal and Shame, and a continual tacit Reproach of his Unworthiness. That a Nobleman without Merit or Virtue, is like a Mausoleum, which under a pompous Appearance, hides nothing else but Corruption or despicable Ashes. That if the Publick respects his Title as a Reward of Virtue, they despise the Person who undeservedly is dignified with it; that therefore it would be more to his Advantage and Honour, unless he be determined to support it with the same Reputation his glorious Ancestors have acquired and supported it, he should renounce it. That what was given once to Merit, was not designed to serve afterwards, as a Cloak to Pusillanimity, Ignorance, Luxury, Extravagance, Brutality, and Haughtiness; and that his Ancestors had never desired such a Mark of Distinction, if they had imagined that they had left it to such a worthless Posterity. That his Great Grandfather such a one, was originally but a private Gentleman; who, to signalize himself in the Service of his Country, entered into the Army, where having behaved gallantly, during several Campaigns, sometimes in the quality of a Volontier, and sometimes at the Head of a Company, was preferred afterwards to the Command of a Regiment; in which Post having given new Proofs of his Intrepidity and Courage, he was placed at last at the Head of a greater Body of Forces; with which having often repulsed,

beaten, or routed the Enemy, his Prince, as a Reward for his great Services, had been pleas'd to honour him with the Title, himself his Great Grandson had inherited. That his Grandfather having not the same Inclination for the Army, had qualified himself to serve his Country in another Capacity; and his Prince, being inform'd of his Qualifications, had preferr'd him to be a Secretary of State; in which Post he supported the Reputation of his Father, by his great Dexterity in the Management of the publick Affairs, and his Disinterestedness. That his Father, having very well studied the Law of his Country, had been placed on *Astrea's* Tribunal; where he had behaved with so much Candour, Integrity, and Impartiality, that his Memory will be in Veneration throughout all future Ages. That his Uncle such a one, having embraced the ecclesiastical State, and been afterwards preferr'd to a Bishoprick, had given in that eminent Post so many repeated Marks of the Sincerity of his Religion, of his great Piety without Affectation or Hypocrisy, and of his extensive Charity, that he was then the greatest Ornament of the Sanctuary, and had heightened the Glory of his illustrious House by the Radiancy of his Virtue; and as that Glory had not yet suffered the least Eclipse, he was obliged to maintain it in his Person with the same Advantage, lest by being the first to degenerate from his Ancestors, he should render himself still more odious both to the Publick, and to his Posterity.

With those salutary Instructions often repeated, and supported with so many good Examples, it is almost impossible that a young Nobleman (unless he was born with very vicious Inclinations) should not be prompted to imitate the Virtues of his Ancestors, and to support the Honour of his Title by a polite *Education*.

On this solid Foundation, a Tutor may easily build the rest of his Edifice, and begin by teaching his Pupil the Principles of a noble and becoming Humility; contrary to that insupportable Haughtiness affected by the Great, and countenanced by the Superiority of their Rank. Such Humility does not consist in entirely forgetting what a Person of Quality owes to himself, when in Compromise with his Inferior, but in that noble Affability, which renders him accessible to all those who are obliged to approach him, without overawing those of a mean Condition with Supineness, which but too often strikes them dumb, or makes their trembling Tongue falter, and pronounce but ill articulated Words, which neither the Person they are speaking to, nor themselves understand; but rather encourage them to expose freely their Sentiments. For it is not with the common People (who must be very well persuaded of the Superiority of the Great) they are to stand on the Ceremonial, but with their Equals; for they must think themselves so far above the Vulgar, not by a Principle of Pride to despise them, but by one of Generosity, that it is impossible their Behaviour could offend the Great.

But the same cannot be said of Persons of an equal Condition; for it is necessary to preserve a good Order among the Nobility, that every Nobleman should know his Rank, and be jealous of it; for by a too great Condescension and Complaisance, there might happen a Confusion among them, which could be attended, afterwards, with fatal Consequences. For there are some Members of that illustrious Body so very ambitious, that what has been granted to them once, by pure Complaisance, they claim it afterwards as a Right.

A young Nobleman should not be inspired with a Spirit of Revenge, nor persuaded to be always on the *Punèlio* with his Equals; for the one is very dangerous, and the other entirely ridiculous; but however he must be made sensible of the gross Affronts which might be offered to him, which it would be Pusillanimity in him to let escape unpunished. It is true, that this Maxim is not very agreeable to Christianity, which commands us to forgive all our Enemies, without the least Restriction; but the World judges otherwise, and as the Honour attacked in those Cases, is a world-

ly Honour, it must be either supported by the Maxims which the World has established for it, or renounced; for a Nobleman who would be thought too Christian-like inclined, would be exposed to an Infinity of Affronts. And I know no other Remedies for a Nobleman to these Inconveniencies, than to be always so circumspect, and so much upon his Guard, as to give no Occasion for Insults; and if notwithstanding his great Circumspection, he is insulted in the most sensible Manner, he must ask the Satisfaction expected in such Cases, though perhaps condemn'd by Heaven; or derogate from his Quality. Princes, conscious that Honour is a very tender Point, have found the most efficacious Remedies to prevent its being grossly attacked, by making very severe Laws to punish the Guilty, and thereby stop the Impetuosity, or rather Insolence, of those who are never better pleas'd but when they find the least Opportunity to insult others, which is an infamous Conduct, beneath, not only a Person of Quality, but even one who has the least Notion of true Honour.

A young Nobleman should also be entertain'd in the true Sentiments of a generous Hospitality, which was once the true Characteristick of the *English* Nobility and Gentry; but at present greatly neglected. For of what Advantage is it to the Commonwealth, that the Nobility live in Opulence and Splendor, if none but themselves receive the least Benefit from it? And if none are admitted to their Table but those who want it less? I would not have them keep open Table for all Comers without Distinction, but only for those who are the worthy Objects of a generous Hospitality; for those Gentlemen who have no other Fortune but an illustrious Birth, or a personal Merit, or a polite and liberal Education, which every Body knows is at present a very barren Estate. The Company of such Persons is always worthy a Place at a Nobleman's Table, and what he learns in such Company, indemnifies him sufficiently for the Expences he is at in keeping them; for the Money he lavishes in a Day's Pleasure, would maintain five or six such worthy Objects for a whole Year. But those Maxims of Hospitality are a Kind of Paradox in this Age, and a Blockhead who has all his Merit buried in a vast Tract of Land, or shut up in his strong Box, let him make what Appearance he pleases, will be well entertained by the Great, and received into their Palaces, with all the Demonstrations of a Respect which he has not the least Title to; while Persons of a real Merit who have nothing else to recommend themselves, do not so much as dare to approach those Palaces, for fear of being expos'd to the Insults of Servants, who after the Example of their Master, hate or despise every Thing that bears the least Mark of Indigency.

Those Errors proceed from Want of a polite *Education* in the Great, who are often put under the Conduct of Tutors, who, having been *educated* themselves in bad Principles, and with mean Notions, cannot teach their Pupils what they do not know themselves; and who have been preferred to that profitable Post, rather on the Recommendation of potent Friends, than in Consideration of their Capacity; for I have seen that Merit without a powerful Recommendation, will never prefer a Person to be the Tutor of a young Nobleman, while Recommendation without Merit is always sure to do it; therefore, we are not to be surpris'd if the young Nobility learn scarce any Thing else in their Infancy but how to indulge their Passions; they have Tutors it is true, but it is only for a Sort of Parade, and those Tutors are so much afraid of losing their Place, were they to disoblige their Pupil, that it is very difficult to distinguish if the Pupil is under the Conduct of the Tutor, or the Tutor under that of his Pupil; so that, properly speaking, there is no other Difference between a Tutor and a menial Servant, but in the bare Name; and who but Scoundrels, without Knowledge or Capacity, would submit themselves to the Drudgery, which at present is expected from a Tutor, who must wait on his Pupil, as a Lacquey is oblig'd to do on his Master?

Too happy if I could flatter myself with the Hope of reforming those scandalous Abuses, which are the Occasion of the Degeneracy of the Nobility in all Countries from its antient Lustre. For there are yet Persons of a very great Merit and Capacity, who would be glad to be the Tutors of young Noblemen, were they to meet with a due Encouragement; but they would never submit themselves to act the Part of a Servant, when some of them are perhaps as well born as their Pupils.

Liberality is also a Quality essential in a Nobleman, and Avarice a shameful Vice which eclipses all his good Qualities or Perfections. I would not advise a young Nobleman, was I to be his Tutor, to impair his Estate, or to ruin his House, by giving to all those without Distinction who apply to him for Relief, under Pretence of a noble Liberality, for that would be rather Prodigality than Liberality; but I would have him chuse among them, those who are really worthy of a Relief, and not make Use of that frivolous Excuse so common among the Nobility of this Age, to cover their Parcimony, or rather Avarice, that if he had once the Reputation of giving to some, he would be continually besieged by an infinite Number of others; since it is always in his Power to give to whom he pleases, and refuse whom he pleases, without any of them being capable to make him give against his Inclination. But however to leave no Room for any Excuse of that Kind, let him even refuse all those without Distinction, who have Assurance enough to make Application to him, and by whom he is afraid of being too often importuned: For in fact, it is not always those who are most troublesome, that want most; but if he be really liberal, he can be easily informed, if he pleases, where to exert his Liberality some where else, and where to find those worthy Objects whom the Shame of their penurious Condition hide from the rest of the World, and who will rather die in Misery, than expose themselves to be refus'd with Scorn; for in fact, a true Liberality never waits to be asked, but always meets Want and Distress half-way at least.

To render my Pupil capable to distinguish the deserving Objects of a noble Liberality, from among those who are not so, I must inform him that those are really deserving, who have been reduced to a State of Indigency by some unforeseen Accident, to which they have by no Means been accessary, either by their Prodigality, Luxury, Debauchery, or Extravagance; all those who have always been in that State of Indigency, notwithstanding their honest Industry, and the indefatigable Pains they have taken to raise themselves above it; all Persons of Birth, Education, and Merit; and not be of the *Turks* Opinion, that it is impossible that a Man of Merit should be poor, since we may see if we will, that, ordinarily, Fortune is more favourable to Stupidity and Ignorance, than to Virtue, Wisdom and Knowledge.

A Nobleman can also exercise his Liberality in another Manner, which is, never to sell his Favours, or the Posts which are at his Disposal; for such an infamous Commerce is beneath a Man of Honour, much more a Person of Quality; neither is he to suffer his Domesticks to exact any Gratification on that Consideration, or to receive any, without it be with a free Will; a Maxim which our noble Pupil, should be thoroughly acquainted with, in Case he was ever prefer'd to some considerable Post in the State, or in the Army; for nothing is more contrary to the Principles of true Nobility, than to encourage the Vexality of Posts or Employments, which should always be given to Merit, preferably to all other Considerations. How scandalous is it, for Example, for a Nobleman who has been honoured by his Prince with the Command of a Regiment, to set the principal Posts of that Regiment to Auction, and give those Posts to the best Bidders, to the Exclusion of those, who by their long Services and Bravery, have a Right to it? Hence the Miscarriages in the Fields, committed by those who are Commanders, but not Soldiers; hence those shameful Routs or Defeats, caused by them who had more

more Money than Courage; and hence those scandalous and criminal Plunders of the Soldiers Subsistence, committed by those Mercenaries, who, to reimburse themselves of what they have given for their Post, starve the poor Soldiers, and rob their Prince or Country. Venality is equally dangerous, and scandalous in the State. For thereby are intrusted with the Management of publick Affairs, Asses, Scoundrels, and Sycophants, who buy the Confidence of the Prince, or of his Ministers, to have a favourable Opportunity of selling their Country; and by their Ignorance and Blunders, render it despicable to other Nations.

There is another Sort of Venality, still more dangerous and criminal than abovementioned, which Noblemen often make no Scruple to be guilty of, and against which our young Pupil must be cautioned; and that is, when the Nobility buy the Favour of a Minister at the dear Price of their Honour and Conscience, and silence both, to support his Tyranny, disguise his Incapacity, and hide his Imperfections, and excuse his Blunders. A Nobleman who is guilty of those atrocious Crimes (for such they are in Reality) should be abhorred and detested by the wholsome Members of that illustrious Body, and spurned from among them, as a spurious corrupted one, nay he should even be banished from all the Orders of a Civil Society, as a Shame to Mankind; since born in a more perfect State, he renders himself guilty of Crimes abhorred even in the Cottage of a Peasant, or a Cobler's Stall; and sells at so vile a Price his Honour, which ought not to be purchased at any Rate, since it should be dearer to him than all the most precious Gifts Fortune could flatter him with, nay, even than Millions of Lives, if he had as many; Favours, Hope, Fear, Sollicitations, Friendship, Gratitude, and all other Considerations should prove ineffectual, when employed to tempt a Nobleman's Honour; that Honour which has perhaps cost him so much in the Acquisition, and which is the best Inheritance he can leave to his Posterity. Our Pupil ought to be made to understand, that nothing is more scandalous than to see a Person of an antient and illustrious House, cringing at a Minister's Levee (who is often a Man of Fortune, and no Birth) with no other Design than to advance himself and Family; whereas if besides his Birth, he has Capacity, and Merit, what he asks so servilely of the Minister, is due to him; and if not, it is a Crime in him, and an Injury offered to his Prince and Country, to pretend to what he is not capable to administer; a tacit Confession of his Want of Capacity, in asking nothing, or pretending to nothing, is more to his Honour, than if he was advanced to a Post wherein he would be obliged to shew publicly, that he is not capable of it.

When I mention Nobility in this Place, I do not understand a modern one, nor those Mushrooms sprung up in an Instant, or from a Dunghil; whose Nobility is but a Reward for some iniquitous Services done; or a Qualification indispensably necessary to render them capable to countenance some ill concerted, or pernicious Measures; for a Title thus acquired, is rather a Scandal than an Honour to the Person who is supposed dignified with it; to which the Condition of an honest Artisan or Peasant, is far preferable; therefore such a Title will never flatter the Ambition of those educated in Principles of Honour, and Probity.

Ignorance has been thought for a very considerable Time the true Characteristick of the Nobility, and in fact Noblemen themselves have falsely imagined that it was beneath them to study Arts and Sciences, and that a polite Education consisted wholly in being instructed in those bodily Exercises, of Fencing, Riding, &c. and in those Diversions of Dancing, Hunting, Gaming, &c. which, as they are always attended with vast Expences, seem designed more particularly for Persons of the first Rank supported with a considerable Fortune; so that take them from a *Salle*, from a *Manège*, or from among their Huntsmen, and Packs of Hounds, they scarcely know how to behave, and appear as disconcerted, as if they were in another World:

But they are grossly mistaken; for those Exercises, though included in a polite *Education*, make but the least Part of it; so that we have seen very polite Gentlemen, who had never handled a Foil, nor rode a great Horse, nor danced a Rigadoon, nor hunted a Hare or a Fox. Though certainly, a Person who is born to wear a Sword must know how to use it; but I mean that those Exercises are but Accessories, and that the essential Part of a polite *Education*, consists in rendering one's self capable to be useful to the Republick, by the Study of the Arts and Sciences; for a Person who rides very well, and has not learned the true Interest of his Prince, and of his Country; and the Difference between them and those of the other Nations, the true Maxims of the best Politicks, founded on the Glory, Honour, and Security of his Nation; and the fundamental Laws of the State, which must direct all Measures taken with regard to domestick Affairs, would make but an awkward Figure in the Cabinet of his Prince; likewise he who has Courage enough to answer a Challenge or Appeal, and knows how to follow exactly in those Encounters, all the Rules of the Art of Fencing, but is entirely ignorant of the Military Art, is not fit to command an Army. If a Nobleman knows neither the History of other Countries, nor that of his own; he must appear stupid in the Company of them who are perfectly acquainted with both; and cannot take Part in the most entertaining Conversation, which is that on History, since it offers to our Mind, all that has been acted in the different Ages of the World, as present as if they were then acting. For my Part, I am of Opinion, that one of the principal Cares of a Tutor should be to render his noble Pupil a very good Historian, since thereby his Memory furnishes him with rare Examples of Piety, Virtue, Magnanimity, Constancy, Probity, Liberality, Generosity, Compassion, &c. which might engage him to follow them; when as he that has not that Advantage, must be entirely indebted for his good Qualities to his natural Inclinations, supported with the very few Examples of that Kind, which by Chance we meet with in this corrupted Age.

A Nobleman should also know as much of Theology or Divinity, as is necessary to strengthen him in his Religion, hinder him from following blindly every new and extravagant Opinion, broached by Visionaries, or Enthusiasts; to lacerate the seamless Gown of *Christ*, ruin the true Religion, and disturb the publick Tranquillity. It is also very scandalous for a Nobleman who had been born and educated in the Principles of the true Religion, to apostatise from it, under what Pretence soever, but more particularly, in view of advancing his own private Interest, or of saving his Estate; for in acting thus, he is abhorred by the Party he has deserted, and laugh'd at, and despised by that he has embraced. Nothing should engage him to change his Religion, but the Doubts which his Knowledge of religious Matters, makes him entertain of the Religion he has been educated in, and the Desire of being instructed better, and put in the right Road to Salvation.

These are chiefly the Arts and Sciences which our noble Pupil should learn, for his *Education* may be a very polite one, though he understand neither *Greek* nor *Latin*; since there are very few good Authors who have wrote in those Languages, on any Art or Science which have not been translated into the modern ones; though it be an Addition of Perfection in a Nobleman, to be Master of several Languages, antient and modern. He should also be persuaded to encourage as much as it is in his Power, all those who are professed Masters, in any Science or Art, since he acquires thereby, a new Increase of Honour, and renders his Memory respectable to the Posterity, which cannot fail being grateful to those who have contributed towards rendering her more perfect in any kind of Literature or Learning. This is more to the Honour of a Nobleman, than to give with a prodigal Hand to those Monsters, who have disgraced Nature to make her appear with a greater Affectation in their Throat; for

of

of what Service can it be to the Commonwealth, a Song from those Wretches, for to be paid at so dear a Rate, when we can hear every Day better, and more natural Voices, and which flatter more agreeably our Ears, for little or nothing? Is Musick carried to a greater Perfection, by the affected and unnatural Voice of those Eunuchs? or rather, are not its most beautiful Rules trespassed and disfigured by that Affectation? but a Nobleman in a *Sally*, or some other ridiculous Motive, has made such considerable Presents to *Farinelli*, because he squeaked better than *Nicolini*, or *Senesino*, therefore he must be followed by all the rest; a very good Reason truly for countenancing such ridiculous Prodigality. But will that Nobleman treat in the same Manner a Man of Letters, who by an assiduous Labour and Study, has made some new Discoveries advantageous to the Republick, or has published some considerable Work for the Service of the learned World, or to promote Learning in a Country? no; why? because having not the Opportunity of doing it in so publick a Manner, his Liberality would not be so well known; besides, was he to do it, he would be every Day importuned by those learned Beggars; it is what I can scarcely believe; for had, what has been lavished among the *Italian* Singers, for these 12 Years past only, been distributed among the truly learned of the Kingdom, it would have put them so much above that State of Indigency, several of them are reduced to, that they would have wanted afterwards no further Encouragement of that Kind; and I am persuaded, that Men of a liberal Education must have so great a Reluctancy against applying to the Great, for Assistance, that they would be glad to be put in a Condition of abstaining from it; particularly when they must be conscious, that Indigency though ever so well accompanied by Arts and Sciences to the Palaces of the Great, meets almost always with a very cold Reception, who plead for Excuse, that though they admire the Ladies, they are utter Strangers to the Person they would be willing to introduce. Therefore our Pupil must be cautioned against making so ridiculous a Distinction, which is nothing but a Cloak to Parsimony or Avarice. For if the Person has a real Merit, let him be a Stranger or not, it is not the Person he encourages, but his Merit, neither is the Service done to him alone, but to a whole Nation in general, by making her Partaker of the great Knowledge and profound Learning of that Person.

Probity, Justice, and Impartiality, are also Qualities essential to a Nobleman, and a Tutor must endeavour to instruct his Pupil in all those Virtues, in convincing him that he is more obliged to practise them than Persons of an inferior Rank; for as Nobility is a State more conspicuous to the World than any other, all others endeavour to modelize their Conduct on that, and they are all more or less just, honest, impartial, &c. as the Nobility is more or less just, honest, impartial, &c.

The Probity of the Nobility consists, chiefly, in dealing fairly with their Inferiors, without taking Advantage of the Superiority of Rank to oppress them, or to invade their Property; for our young Pupil must not imagine, that because he is a Nobleman, he is allowed to act as arbitrarily as he pleases, without being subject either to the Direction or Coaction of the Laws of his Country; his Pre-eminency over all his other Fellow-Subjects and Countrymen gives him no other Privilege than that of being a more religious Observer of them; that his Example may remind others of their respective Obligations on that Subject; and he must know, that to imagine that the Nobility is not obliged to follow the exact Rules of a distributive Justice, is a scandalous Maxim, which Oppression and Injustice have introduced in the Civil Society. For if some Privileges granted to them from Time to Time by Princes, in Consideration of some signal Services he has rendered, and can render to the State, has exempted him from some vexatious Formalities of the Law, to which the Commonality is subject, it was not done with a Design to screen Injustice and Oppres-

sion, nor to exempt Noblemen from paying, for Example, a just Debt; on the contrary, it was done under this judicious Supposition, That the Nobility having greater Principles of Honour and Equity, would without Compulsion, observe all the Rules established in a well civilized Republick; for there is nothing more scandalous, than to see the Nobility lord it over their Vassals, as so many petty Tyrants; or the Gates of their Palaces continually besieged by poor Handicraftsmen, asking for the Price of their Labour, which they seldom received, but after a long and assiduous Attendance; and not then, before a Steward, or other Servant who has procured the Payment, has extorted Part of it. An infamous Practice, and very injurious to the Master, which our Pupil must never suffer to be introduced in his Family, but discharge from his Service any Servant who could be suspected to have the least Inclination to do it; and excluding it from the Agreement he makes with them, when they first enter into his Service.

He must likewise avoid appearing partial, in the Posts he may chance to be promoted to; and never grant to Favour, Inclination, Friendship, or Intreaties, what is due to Justice: This Impartiality must even extend as far as to Party Divisions; never espousing any if possibly he can avoid it; and when forced to it, never but that which has for its Object the publick Good; and never by a Motive of Ambition, Antipathy, or Revenge, or to gain the Affection of the Rabble, which is a very great Disgrace to a Nobleman; avoiding above all Things being accounted the Chief of a Party, since it is the infamous Characteristic of a declared Enemy of his Country; much more infamous still, if the Chief of a Party is so by a Motive of disappointed Ambition, or of Interest, or of some private Pique; which is but too often the Case of Chiefs of Party; and those Motives ceasing, the Partisan soon deserts his Party, and espouses the opposite one.

Those Party Divisions are entirely contrary to the Love for one's Country, which a Tutor must take a very particular Care to inspire his noble Pupil with; and to inform him, that *that* Love does not consist in that ridiculous and vulgar Infatuation, That nothing is good, and nothing is great, out of one's Country; that Courage, Bravery, Wisdom, Prudence, Plenty, Opulence, and Wealth, are to be found no where else; since it is an ignorant and scandalous Prevention, which is nauseous to all judicious Minds. Those Rhodomontades, far from asserting the pretended signal Advantages a Nation boasts of to the Exclusion of all others, renders her the Object of an universal Scorn, and shews the Narrowness of her Conceptions. As a noble, great, and generous Soul, renders always Justice to Merit, wherever he finds it, even in his most mortal Enemies; far from advancing Falshood and Impertinences to support his own, it must be a mortal Pain to him, to hear his Fellow-Subjects and Countrymen villify infamously another Nation, and accuse its People of Cowardice and Pusillanimity, who for the Rapidity of their Conquests, which they have carried to the Extremities of the Earth, and for an infinite Number of signal Victories they have gained over all *Europe* united against them, have been recorded in all Ages for brave and warlike People, respected by their Allies, and dreaded by their Enemies, even to these Days; for the scurrilous Invectives, and low Satyrs, of some other Nations against them, proceed not from a Consciousness of what they say is true, but from a natural Antipathy, and Jealousy of those People's Grandeur; which appears clearly from the malicious Care they take to eclipse the Glory of their greatest Actions, and represent them otherwise than they are in Reality. Far be from our Pupil's noble Mind that mean and pitiful Manner of expressing one's Spite, which must be left to the most despicable Rabble; let him never accuse his Enemies of Cowardice, for no other Reason than because they are his Enemies; especially when the most impartial Historians of all Ages can

can give him the Lye. If he will shew his Bravery, and Greatness of Soul, let him imitate the greatest Heroes, who have always extolled and admired the Courage of their Enemies; and never imagined themselves wholly possessed of that noble Quality. Let him be contented with the signal Advantages he has in common with his Countrymen, without robbing the other Nations of theirs; which Injustice proceeds from Want of a polite *Education*. If we are so just, so wise, so generous, and so brave, as we would be accounted, let us shew it by our generous Conduct, rather than by our Words; since, thereby, we'll oblige other Nations to do us that Justice, which from us to ourselves smells too much of Self-Conceit, Pre-sumption, and Vain-Glory; for we must be conscious that our Actions lose a great deal of their Value, as we are the first to extol them. For Example, I love to hear a *Frenchman* prize the Merit of the *English* Nation to its full Value, and I must do that Justice to my Nation that I have never heard otherwise; but I hate as much to hear my own Nation insulted by another; which however happens often. Sometime ago I was visited by a Person, who, to compliment me in a Manner I was utter Stranger to, did break forth into a great Number of Scurrilities against the *French*: Another Time I was, by Chance, at a Bookseller's in *Covent-Garden*, which I have been told since is the Rendezvous of the Wits, where another Person was robbing some of the best *French* Generals under the late King *Lewis XIV.* viz. *Condé, Turenne, Luxembourg, Vendôme, Catinat, &c.* of all the Glory they had acquired in the Field, pretending that all their Successes were owing to a Caprice of Fortune, and not to their Bravery, nor to that of their Armies, the *Frenchmen* being generally all Poltroons; and all their pretended Bravery a mere Gasconade. This gross Insult had affected me more, if it had been offered by a Person of some Merit; as for Birth and *Education* it is easy to guess that he had neither; but as I found that he was quite ignorant even of the History of his own Time, I took no Notice of him; and left him, sending back the King of *Naples* to *Madrid*, restoring *Lorraine* to Prince *Charles*, conducting an Army of 100,000 *English, Austrians, and Dutch* to the Gates of *Paris*, and himself in the Road to *Bedlam*.

This is not the Character of the *English* Nobility and Gentry, nor even of the most sensible among the Commonalty, whom I have always heard speak (few excepted) without those mean Prejudices, and with a great deal of Impartiality and Justice, of other Nations. Such a noble Behaviour pleads better in favour of the *English* Nation, which is equal, in Merit, to any other upon Earth, than the ridiculous Rhodomontades of the Rabble.

If it is scandalous for a Person of Birth, and contrary to the Rules of a polite *Education*, to reflect injuriously on other Nations, it is much more so to do it on the sacred Person of Princes; who being here on Earth the Vicegerents of God, should never be mentioned but with the most profound Respect, especially by Gentlemen, since the Throne is the Source of all Honours; and a Prince the Head of that illustrious Body, whereof the Nobility and Gentry are Members; since the Reflections cast on the Head, reflect on the whole Body: Therefore the Nobility and Gentry should be as jealous of the Honour of their Prince, as they are of their own.

Our noble Pupil must never be permitted to read Romances, nor any other Books capable to debauch his Morals, and deprave his Heart; for as we have all a natural Propensity to indulge our Passions, we are soon susceptible of the least Thing which can encourage that Indulgency, or prompt us to it. If he be designed for the Sanctuary, Books of Theology, and of Piety, must be his chief Study; if for the Army, he must read the Annals of his own Country, and those of other Nations which have been most fertile in Heroes; if for the Cabinet, the Memoirs and Transactions of the best Ministers of all Countries; and also the Miscarriages, Blunders, &c. of bad Ministers, that know-

ing them, he may be more capable to avoid them; and if for the Judicature, he must often entertain himself with the Lives of those great Magistrates; whose Integrity has rendered their Memory precious to Posterity. In these noble Occupations, interrupted by some other noble Exercises and Diversions agreeable to them, he'll have no Time to listen to the Dictates of criminal Passions; nor to spend among the fair Sex, whose Charms are still more dangerous, when our Mind has not acquired yet that Prudence; necessary to resist them in a Manner as to be not entirely conquered by them. For though the Company of the Fair Sex claims a certain becoming Circumspection; and a Complaisance, which correct a certain Savage Air, which the Pupil contracts under the Conduct of his Tutor, they must not be too often frequented by Youth.

Neither is our Pupil to contract an Intimacy, or Familiarity, with all sorts of Men indifferently; not even with all those of a Birth equal to his, if their *Education* and Morals are not agreeable to their Rank; for as Quality is not always accompanied with Virtue; but on the contrary, is but too often, especially in the corrupted Age we live in, a Pretence to a greater Immorality, Extravagancy, Luxury, Licentiousness, Irreligion, &c. he can't be too cautious in the Choice he makes of his Friends, lest by frequenting them he should accustom himself to imitate their Vices; or modelize his Conduct to the Irregularity of theirs. It is the Duty of his Tutors to direct him in that Choice; and to let none approach him but those who are capable to inspire him with noble and virtuous Sentiments.

A young Nobleman should also be informed, as much as possible, of the different Manners and Genius of other Nations; since thereby he is render'd capable to make a just Difference between the Good and Bad found among them; in order to imitate the one, and avoid the other.

There ought to be but little or no Difference between the *Education* of the Gentry, and that of the Nobility, and in my Opinion they should be both founded on the same Maxims; the whole Difference consists, if there is any, in that the Gentry being exposed to a greater Familiarity with the Vulgar, should also be more upon their Guard; lest they should be susceptible of some of those low Principles and scandalous Notions, which render the Rabble insupportable, and make it considered as the Excrement of a Civil Society. As the Gentry is next to the Nobility, or rather, as there is no other Difference between both but in the Title; they must also endeavour to imitate the Nobility, not in Pomp, Luxury, or Extravagance; but in the Maxims of a polite *Education*; for a private Gentleman, though perhaps born of a very antient Family, having no Title to claim that Respect commonly shewn to one, he must endeavour to gain it by his gentle Behaviour and personal Merit, founded on the Advantages of a polite *Education*; which are greater than all the other Advantages we can possess in this World; for all the others are subject to Vicissitude, and Fortune can rob us of them all at once; but never of those of our *Education*, but with our Life.

If it be objected, that the World, at present, takes little or no Notice of a polite *Education*; when not supported with some other Advantages, especially those of Fortune; and that Stupidity and Ignorance, in a pompous Equipage, will always be preferred by it, to Merit in Rags; I'll answer, that the Depravation of the World's Taste is not an Excuse for abstaining from a polite *Education*; no more than its countenancing or approving all Sorts of Vices and Disorders, renders us less guilty if we plunge ourselves in them. Besides, among the Generality of Mankind, there can be found yet some Persons who admire and encourage a real Merit. Who knows, besides, but our having neglected so long those Advantages of a polite *Education*, is the Cause of the World's taking so little Notice of it; and that it would change its Taste if we were to change our Conduct? However, what's the World to us, when

when we are conscious to ourselves, that though we have not its Approbation, we deserve it, and that its despising or neglecting a real Merit, is an evident Proof that it has none itself.

Commerce, and other Employments of that Kind, in a trading Nation, where almost all Professions are honourable, cannot be a Bar to a polite *Education*; on the contrary, the Advantages of that *Education*, inspire a young Gentleman with a Docility necessary to learn the Rules of his Art or Profession; and with a Politeness capable to engage the Publick to deal with him, preferably to those who for Want of *Education*, are guilty of Brutalities and ill Manners, which are of no Body's Taste; and which will never engage a Person to deal with them, while he can find some Body else to use him with more Civility and good Manners.

The Tutor of a young Gentleman, should above all Things inspire him with Sentiments of Hospitality, as well for Foreigners as for his Fellow Countrymen; for there is nothing more contrary to the true Principles of Humanity, and nothing more resembling the Ferocity of the most savage and barbarous Nations, than Want of Hospitality. That Hospitality does not consist wholly in granting to Foreigners the same Protection we enjoy in their Countries, and which both we and they can claim a Right to, founded on the Laws of Nations, but in granting it with Pleasure and Humanity, without suffering them to be expos'd to those opprobrious Reproaches and Insults, which can but give them a very disadvantageous Opinion of our Genius and Manners, and make them consider us as amphibious Creatures, rather more Brutes than Men.

The *Education* of the Fair Sex, is also one of the chief Articles to be minded in a well civilized Commonwealth, for though they be not design'd themselves for any publick Employment, most of them are to have the Conduct of those in their Infancy, who are designed for those Employments; and as the Prejudices of Infancy are always the strongest, Care must be taken to qualify the Fair Sex for such Conduct, lest Mothers by their bad Examples, should sow and cultivate in the young Minds of their Children, the Seeds of Imperfection and Vice; which afterwards it is very difficult to root out.

Vanity, Pride, and Luxury, being the three Passions most natural to the Fair Sex, and which seem to be born with them; and those Passions growing still stronger and stronger, either because they are authorized by the Charms natural to them, or by the great Indulgency, Complaisance, and Deference, which almost the whole Creation pay them; those Passions must be checked at first, for when once they have gain'd a certain Ascendant over their Mind, they render the Fair Sex as insupportable, as otherwise they would be charming and amiable.

A beautiful young Lady, must learn from her Infancy, that those natural Charms she has received from the munificent Hand of her divine Creator (and which make her appear as one of the most perfect Pieces of Workmanship of the whole Creation) were not bestow'd on her with no other Design than to render her the Admiration of Mankind; since a fine Statue has the same Advantages, or rather greater, because the Beauty of a Statue is a lasting one, whereas that of a Woman fades in an Instant like a Flower, or vanishes like a Vapour; that therefore the Charms of her Body, should be supported and heightened by those of her Mind, since when those are vanished, these remain, and cause then rather a greater Admiration, and claim a still greater Respect, than when united together; for our Eyes being no longer dimm'd by the too great Radiancy of those external Charms, our then unprejudiced Mind conceives the easier the real Value of those solid Ones of the Soul, which are seldom subject to any Vicissitude.

Those Charms which should adorn a Woman's Mind, are in some Measure, different from those which embellish a Man; for it is not expected that a Woman should be a profound Theologian, or a Philosopher, or a Poet, an Historian, a Politician, &c.

but that she should be modest without Affectation, religious without Hypocrisy, discreet without Dissimulation: That while yet under the Conduct of her Parents, she should behave towards them with all the Deference and Respect, which both Laws, divine and human, claim from her for them; since acting otherwise, is a Crime punishable with the greatest Severity, both in this World and the World to come. And that in the State of Matrimony, her principal Care must be to please her Husband, and the *Education* of her Children; not to spend his Fortune in Extravagancy and Luxury, and leave the *Education* of her Children, to whom will be pleas'd to take Care of it; which Disorders proceed often from a bad *Education*: for a young Lady, having been brought up from her Cradle to mind nothing but her Pleasure, and having been indulged by her Parents in all that could flatter her favourite Passions, imagines easily that she is born for nothing else; and that all that Economy, and other Family Cares, which make the chief Occupations of Women of an inferior Rank, is infinitely beneath her's; which in her erroneous Opinion, cannot be otherwise maintain'd but by the Splendor of her Equipage, the Magnificency of her Cloaths, which she must alter according to her Fancy, *i. e.* as often as she can, in the Sumptuosity of her Apartments, in Visiting, Gaming, Rioting, and sometimes in very criminal Intrigues. Hence those Disorders in an illustrious House, which till then, had been remarkable for a noble Economy; hence an immense Wealth exhausted in a very short Time, and a large Estate incumber'd with Debts, which a Husband is forced to contract, to supply the Profusions of his extravagant Wife, and to purchase at that dear Rate a Shadow of a domestick Peace; hence those Children as debauch'd and as vicious as their Mother; and hence at last, the entire Ruin of a whole Family; which could have been avoided, if the Parents of such a Woman, had brought her up from her Infancy in a noble Simplicity in her Cloaths, telling her at the same Time, that it is by her Birth and her *Education* she must be distinguished from the Vulgar, and not by the Magnificence of her Cloaths, since she can be rivalled in the one by the Daughter of a rich Scoundrel, but not in the other: That it is a scandalous Infatuation to think that a Woman of Quality is not obliged to mind her Family, nor to enter into those Details, indispensibly necessary to save it from Ruin; since by neglecting it, there is more Money spent in one Year, than she could have saved in five or six by her Economy.

A young Lady of Quality, who is under the Conduct of her Parents, instead of being suffered to spend her whole Time in Idleness, in receiving and returning Visits, in Gaming, frequenting Opera's, Comedies, Masquerades, and Assemblies, should spend the best Part of that Time in some genteel Occupations suitable to her Sex and Rank, and then what remains of it, in those Diversions, which are no otherwise criminal but in the Excess. For it is not a Crime for young Ladies to be seen once a Month at a Play-House, as often at the Opera, and once or twice a Week at those publick Assemblies, whence they are very sure that Virtue and Modesty are not banished; but even there they should not be seen but in the Company of their Mother, or some other Relation or Acquaintance of an approved Virtue; for their being left on those Occasions to their own Conduct and Discretion, is often the Cause of those false Steps taken by young Ladies, to their own Disadvantage, and the Disgrace of an illustrious House. Neither are they to be allowed to keep any Company suspected of Coquetry, nor to read any other Books, but those which can inspire them with Sentiments of Piety, Modesty, and Virtue.

If these Rules were observed in the *Education* of Women, we should not see so much Extravagance and Debauchery among them, nor find so many Coquets, Jilts, &c. It seems that their *Education* consists wholly at present, in learning how to disguise well their Passions, and hide their vicious Inclinations, in which Art they are soon very perfect, and which they practice

practise no longer than it has answer'd the End it was designed for, *i. e.* to deceive Men; for that End once obtained, they pull off the Mask, and abandon themselves without Shame or Honour, to all Kinds of Irregularities and Extravagancies, and but too often to the most criminal Debaucheries, to the Oppression of their Family, and the Scandal of their Sex; therefore a Man has often the Unhappiness to marry a *Messalina*, whom he had imagined, when he courted her, a *Lucretia*, and a Devil instead of an Angel he took her for. I don't speak by meer Supposition, for I have seen Women, for whose Meekness, Evenness of Temper, Modesty and Virtue, I thought I could have answered before they were married, who after they were married, became as so many Furies vomited from Hell; so well they knew how to disguise their Passions, that they could have deceived the clearest sighted; but I must confess at the same Time, that they were not Women of Quality, and had no other *Education* but what they had learn'd from their Parents, who having gain'd themselves some Advantages by Deceit and Dissimulation, had presented their Daughters with all the Mysteries of that pernicious Art, supported with a great deal of Vanity, no Fortune, and no other *Education* than that of a Coquet, or a Jilt: What's the more surprising, is, that those Sorts of beggarly Women, are more difficult to please than Ladies of Birth and Fortune; for a Lady of Birth, *Education*, and Fortune, let her be ever so extravagant, may be brought to Reason by a becoming Complaisance, which sooner or later, makes always some Impression on a generous and noble Mind, but these Apes of the Quality are inflexible, and are not to be conquered otherwise than by indulging their Passions; why? because those Passions meeting with no Opposition, either from the Blood or from the Mind (the one being as spurious, as the other is depraved) they have ranged so long uncontrolled, that at last, they are by no Means to be conquer'd.

Whence all these Disorders? From an unwarrantable Pride or Vanity, a Woman of mean Birth hath been *educated* in from her Infancy; had she been *educated* otherwise, and in a Manner suitable to her Condition; had she learned to supply the Want of Fortune, by her Virtues and an honest Industry, had she been made to understand that an extravagant Pride becomes no Body, and much less a Woman who has neither Birth nor Fortune to support it with; that the most sensible Part of Mankind laugh at a Person of her Con-

dition, who attempts to soar above her Sphere; that gay Apparel with which she endeavours to cover her Indigency, serves on the contrary to render it more conspicuous, since it attracts the Eyes of the Publick, and makes them more curious to inquire into her Circumstances, which once discovered, renders her despicable; that what is spent to please her Vanity, would be better applied to procure her some honest Means to supply her Wants: That it would be deceiving herself, to imagine that a Man of Rank and Fortune, can be deceived by so vain an Appearance, unless it be to make her subservient to his Pleasures; and that one of an equal Condition with her, who could have more honourable Designs, would be afraid, was he to take her, to bring Famine into his House; since his whole Industry could hardly supply her Extravagancy in Cloaths, without mentioning her Tea-Table, and all other Superfluities of that Kind.

These serious Considerations, would soon make a young Woman renounce those Thoughts of Pride and Extravagancy, she seemed inclinable to entertain; and inspiring her with Sentiments more agreeable to her Condition, render her worthy for her personal Merit, of what her Birth and Fortune had not intitled her to. In fact, how charming an honest Handicraftman's Daughter would appear in Cloaths made of the Growth of her own Country, and spun with her own Hands; how inviting, if, while her honest and industrious Father is working to maintain her and the rest of his Family, she was seen easing him of Part of his Burden, by taking upon her those domestick Cares, which otherwise, he would be obliged to commit to Servants or Strangers, and perhaps not without putting himself to very great Inconveniencies. How worthy of Admiration and Esteem it would be, to know that she is never seen out of the House of her Parents, but to acquit herself of her religious Duties, or when the Necessity of her Affairs require it, or to visit some Friends as virtuous and innocent as herself; that she is an utter Stranger to all that could corrupt her Heart and debauch her Manners; and that her Modesty suffers by every Thing which has the least Appearance to offend it.

A Woman thus *educated*, is preferable to the most immense Fortune, or rather, she is herself an inestimable Treasure, which exceeds in Worth all that can be found the most precious under the Heavens; and a Man blessed with it, can flatter himself of being in Possession of an anticipated eternal Felicity.

E L E M E N T S.

ELEMENT, is defined by *Aristotle* (*Lib. 3. de Cælo, c. 1.*) a certain Body, into which the other Bodies are divisible, or resolvable; in which it is contain'd potentially or actually; and which is indivisible of itself: Thus *Water*, *v. g.* is called an *Element*, because, into it, exclusively of the other *Elements*, the mix'd Bodies in which *Water* is contain'd actually and potentially, are resolved; *actually*, according to the *Entity* or Substance; and *potentially*, according to the Species or visible Appearance; for *Water* cannot be resolved or divided into several Species; for tho' it be extenuated into Vapours, they nevertheless, when the Particles meet again together, are resolved into *Water*.

However it is not very easy to define the Number of those vulgar *Elements*, whereof all Bodies are compounded; for some admit but of an *Element* in the mix'd Bodies, as *Heraclitus*, who reckons but the *Fire*; *Anaximenes*, the *Air*; *Thales Milesius*, the *Water*; and *Pherecides*, the *Earth*; others with *Empedocles*, *viz.* *Aristotle*, *Hippocrates*, the *Peripateticians*, &c. reckon four, *viz.* the *Fire*, the *Air*, the *Water*, and the *Earth*. This Opinion is refuted in the Person of *Empedocles*, by *Lucretius*, *Lib. de rerum natura*, found-

ed on this Reason, that *Elements* and Principles signify but one and the same Thing, when as *Elements*, as they are taken here, are certainly composed of Principles.

The Chymists, on the contrary, (as we have observed in our Treatise of *Chymistry*) besides the *Earth*, which they call *Caput Mortuum*, and *Water*, called *Phlegma*, introduce Salt, Sulphur, and Mercury, among these *Elements* which enter in the Composition of *Mixts*.

Among this Variety of Sentiments, mine is, that of the four *Elements* of the *Peripateticians*, but three deserve that Name, *viz.* the *Air*, the *Water*, and the *Earth*, which I prove in the following Manner.

An *Element*, as understood here, is a certain sensible Body, whereof are composed, and into which are resolved, all Sorts of *Mixts*, *viz.* Animals, Vegetables, and Fossils; itself remaining simple in its Species, and without being divisible, into sensible heterogeneous Particles. But there are but three of the four *Elements* of the *Peripateticians*, *viz.* the *Air*, the *Water*, and the *Earth*, which can be called simple Bodies, in their own Species, whereof are compounded, and into which are resolved, all Sorts of *Mixts*; since, neither pure *Air*,
nor

nor pure Water, no more than the Earth separated from all heterogeneous Particles, are divisible into Particles of a different Species; since we have not seen yet that it was either in the Power of Nature, or of Art, to make such a Separation of the *Air*, of the *Water*, or of the *Earth*, as to resolve either of them into other sensible Species: Therefore of the four *Elements* of the *Peripateticians*, there are but three which deserve the Name of *Elements*.

But the *Salt*, *Sulphur*, and *Mercury* of the Chymists is to be ranked among *Elements*, because they are discovered in the first Analysis, or Resolution of the *Mixts*; for though it be but with the greatest Difficulty they are discovered in Minerals, they are easily found in Vegetables and Animals; as Experience confirms it in the burning of green Wood; whence first comes out a Smoak, in which are found a volatile Salt, or saline Spirit, which pricks the Eyes; then some aqueous and æthereal Particles, which are dissipated in the Air. After the Departure of these, the sulphureous or oleous Substance flames; the most subtile Particles thereof, with the saline Spirits, are likewise carried upwards, as is seen in the Vapour, while the *Salt* remains in the Ashes, which is afterwards extracted by Lixivation; and what remains after the Extraction of the Salt, is called *Earth*, or *Caput Mortuum*. But however, these are not so properly *Elements*, as are the *Air*, the *Water*, and the *Earth*; because they are less simple of their Nature, and some of them can be exchanged into different Species; since there are different Forms of Salts, and different Species of Spirit; and that the Oil changes into a Spirit, and a Spirit into Water.

If it be objected, against my Sentiments, of the Number of *Elements*, that they see no Reason why *Fire* should not be number'd among them; nor why, consequently, there should not be four *Elements*. I'll answer, that *Fire*, at least that we make use of, cannot be call'd an *Element*, whereof the *Mixts* are compounded; because a Body like our *Fire*, which consists of Particles of different Species, like the sulphureous and nitrous Particles it is composed of, cannot be called an *Element*; for though there be nitrous Particles mix'd in the *Air*, and saline ones in the *Sea*, neither of them pertain to the Nature of the *Air*, or of the *Sea*; which cannot be said of the sulphureous and nitrous Particles of the *Fire*, which are absolutely necessary for its Composition.

It may be objected farther, that there must be as many *Elements*, as there are Bodies into which the *Mixts* can be resolved; and as there are four Sorts of Bodies into which the *Mixts* can be resolved; for as when, v. g. Wood is burnt, its oleaginous and inflammable Particles are changed into *Fire*; the Smoak into *Air* and *Water*; and the Ashes into *Earth*; there must be, consequently, four *Elements*. To which I answer, also, that there must be as many *Elements*, as there are simple Bodies into which the *Mixt* can be resolved; but not as many as there are compounded Bodies into which it can be changed; since *Elements* are simple Bodies in their Species, which compound the *Mixt*, and into which it is resolved; but there are many more Bodies into which, either through the Transposition of the Parts, or the Mutation of the Figure, the *Mixt* can be transformed, or changed; as we see in the Bread, which is changed into Chyle, Blood, and Flesh, which are mix'd Bodies, and not *Elements*. For the *Fire* into which Wood is converted, is not a Body simple in its Species, but consists of several Parts of different Sorts; and therefore is not considered as the *Element* of the Wood, but as a mix'd Body generated from another mix'd Body.

If it be urged, that there are as many *Elements* as there are Manners to join the four first Qualities together, viz. *Heat*, *Cold*, *Humidity* and *Siccity*; and as there are four Manners to join them; for as *Heat* can be compounded with *Siccity* in *Fire*, and with the *Humidity* in the *Air*; likewise *Cold* can be united with *Siccity* in the *Earth*, and with *Humidity* in *Water*; and therefore there are four *Elements*.—This Ar-

gument is false for several Reasons; first, because *Heat*, *Cold*, *Humidity*, and *Siccity*, are not to be demonstrated the four first Qualities; since they can be deduced from others more simple, viz. from the Motion, Figure, Rest and Situation of the Parts: Secondly, it can't be affirmed for certain, that the Qualities attributed to each *Element* are properly its own Qualities; for the *Air*, v. g. cannot be call'd humid, but rather *liquid* or fluid; otherwise the Flame could also be called humid: Thirdly, what can hinder Heat from being joined with Cold in a lukewarm Body, and Siccity with Humidity in a soft one; so as there would be then six, instead of four, of those Qualities, there should be likewise six *Elements*. Whence it may be infer'd, that nothing can be defined with regard to the Number of *Elements*, by their Qualities, or the Conjunction of those Qualities.

Another Objection against my Sentiment, is, that there is a mutual Transmutation between the *Elements* of the *Peripateticians*, viz. that the *Water* is changed into *Air*, and *Air* into *Water*; which Transmutation, the more those *Elements* are like one another, is the sooner effected; whence the *Elements* which agree in the first Quality, as the *Air* and the *Water* in Humidity, the *Fire* and the *Earth* in Siccity, are easier changed into one another, than those which have none of the first Qualities in common; as the *Fire* and the *Water*, or the *Air* and the *Earth*; for the *Fire* is hot and dry, the *Water* cold and humid, as the *Air* is humid and hot, and the *Earth* is dry and cold; but as those Transmutations could not happen, without those *Elements* being compounded of heterogeneous Particles, they must certainly be so; and therefore are properly *Elements*.

To answer this, I'll say that it may be possible for the *Elements* of the *Peripateticians* to be changed into one another; by this last Analysis, i. e. by their being resolved into the first Matter, or first Principles, or the insensible Particles whereof they are compounded, but not by their first Analysis; therefore *Water* can be chang'd into *Air*, and *Earth* into *Fire*, if either the *Earth* or *Fire* be resolved into their first Principles, or into the first Matter; for as that first Matter, whether it be the three *Elements* of *Des Cartes*, or the Atoms of *Democritus*, is always of the same Kind, and the sensible Bodies differ only in the Disposition of their Parts; it may be easily infer'd hence, that the same Matter existing in either of the *Elements*, may be changed into another *Element*, if the Form of that *Element* can be given to it.—But if we go no further than the first, or most obvious Analysis; it is impossible the *Elements* should be changed into one another, tho' they may appear so to our Senses. *Water*, for Example, let it ever be so exalted into Vapours, still remains *Water*; and its Particles retain always the same Nature of *Water*, tho' they appear to have changed it into an æthereal one: So that if they be united again, they'll soon exhibit a sensible Species of *Water*; as we experiment in the Rain, which proceeds from a Recoalition of the Vapours which had been exhaled from the *Earth*: Likewise it is false to say, that the *Air* is changed into *Water* in the subterraneous Cavities; for the *Air* is not really changed into *Water*, but the Particles of the Humour which run through the hidden Meatus of the *Earth*; and when several meet together, they are soon conglomerated into Drops, and offer again to our Senses the sensible and natural Species of *Water*.

This Reasoning is prov'd by Demonstration; for tho' the *Air* be pressed in the *Pneumatick Gun*, or the *Artificial Fountain*, so as to be condensed, it however always retains the Nature of *Air*, and is not changed into *Water*: Which is also confirmed by an Experiment of the celebrated M. *Robault*; who having left for the Space of three Years a Matrafs full of *Air*, and well sealed, in a Hogshhead full of *Water*, and the Hogshhead in a very deep Vault, he never found that the *Air* had been condensed into *Water*; whence it is reasonably concluded, that the *Elements* are never changed into one another by the first Analysis, but

but only when they are reduced to their first Principles.

Note, That we must not mistake here the *Elements* for the first Principle of Things, as several Authors have done, since there is a great deal of Difference between them; for as we find by Experience, that all Things cannot indifferently be made of all; that Stone for Instance, and Marble, are not convertible into Flesh, nor are fit to nourish or augment an animal Body; it seems to follow, that all the Variety of Bodies could never arise from the simple Combination of the two Principles, Matter and Form; but only from some infinitely simple Things or Corpuscles, which being variously intermix'd, might constitute all other Bodies. Now those most simple of all Beings, thus formed of the first Determination and Concretion of Principles, are what we properly call *Elements*: So that *Elements* and Principles have this Difference between them, that a Principle, as Matter, is a Kind of incomplete Nature, but an *Element* a perfect and complete One.

From these general Observations on the corruptible *Elements*, I'll descend into a more exact and particular Detail of every one of them; and though I have not reckoned *Fire* among them, because compos'd of Particles of different Kinds; I'll notwithstanding speak of it first, as well because it is commonly esteemed an *Element*, as also because it is the chief Instrument us'd by Nature and Art, either for the Composition of the *Mixts*, or for their *Analysis*, or Separation. Therefore we must examine what the *Peripateticians*, *Epicureans*, and *Cartesians*, have wrote of its Nature, that we may be the more capable to draw from thence our own Conclusions.

The first who is to inform us of the Sentiment of the *Peripateticians* on this Subject, will be their Author and Prince, *Aristotle*, who, *Lib. 2. de generat. & corrupt. c. 3.* who defines *Fire*, a hot and dry *Element*, which Definition cannot however help us towards discovering the Nature of *Fire*; for who among the most ignorant and illiterate People, does not know that *Fire* is hot and dry; or excite a Heat within us, and dry the humid Bodies? This wide and insignificant Definition, has left room for Philosophers to exert their Wit to discover in what consisted those two Qualities of Heat and *Siccity*, attributed by *Aristotle* to *Fire*.

Therefore, *Gassendi*, *Señ. 1. Physic. Lib. 6. de qualitat. rer. c. 6.* which is, *de calore & frigore*, and all the *Epicureans*, place the Nature of the *Fire*, in certain small and round Atoms, which being *Mobiles*, are carried away with a very great Celerity, and strike all the Parts, and disperse and incise all Sorts of Bodies. Therefore the *Epicureans* imagine, that the *Fire* is generated when the igneous Atoms, which were at first dispersed, come together; or the *Fire* is then made *actually*, which before was but *potentially*, v. g. when the Atoms of the *Fire*, which were hidden in the Wood, and very distant from one another, are conglomerated together, and fall out in Bands, then they are said to take the Nature and Species of the *Fire*.

The *Epicureans* pretend, that that rapid Motion, is natural to the igneous Atoms, so that if they were left at Liberty, and not incarcerated in the Parts of the other Bodies, they would instantly fall out through the easiest Way. Which Idea is contrary to the natural one we have of a Body; since no Author grants to it a natural Propensity to Motion, when once it is at Rest; but it must be mov'd by another Body.

Boerhaave, in a new Course of Experiments and Lectures, expressly on *Fire*, *de igne*, distinguishes *Fire* into two Kinds; as it is in itself called *elementary Fire*, and as it is joined with other Bodies, called *culinary Fire*.

The pure and *elementary Fire*, says he, is such as exists in itself; which alone he properly calls *Fire*.

The common or *culinary Fire*, is that existing in ignited Bodies, or excited by the former in combustible

Matter, the minute Particles whereof, joining with those of the pure *Fire*, constitute pure Flame. This latter, in his Opinion, is improperly called *Fire*, in Regard only a small Part of it is real or pure *Fire*.

The same Author considers the Effects; Nature, Properties, &c. of these two different *Fires* in the following Manner; beginning by the *elementary Fire*, which he pretends of itself is imperceptible, and only discovers itself by certain Effects, which it produces in Bodies; which Effects are only learn'd by observing the Changes which arise in those Bodies.

The first Effect, attributed by him to the *elementary Fire*, is *Heat*, which, says he, arises wholly from *Fire*; and in such Manner as that the Measure of Heat is always the Measure of *Fire*; and that of *Fire*, of Heat; so that Heat is inseparable from *Fire*. The second is, *Dilatation* in all solid Bodies, and *Rarefaction* in all Fluids.

He demonstrates both these Effects to be inseparable from Heat, by the following Experiments: An Iron Rod or Bar being heated, increases in all its Dimensions; and the more so, says he, as it is farther and farther heated: Upon exposing it to the Cold again, it contracts and returns successively through all the Degrees of its Dilatation, till it arrives at its first Bulk; being never two Minutes successively of the same Magnitude.

He observes the like in the heaviest of all Bodies, Gold, which when fused, takes up more Space than before; so Mercury, the heaviest of all Fluids, he has known to ascend in a narrow Tube over the *Fire*, to above thirty Times its Height.

He knows the Laws of this Expansion to be, 1. That the same Degree of *Fire* rarifies Fluids sooner, and in a greater Degree than it does Solids; that without this the Thermometer would be of no Use; since the Cavity of the Tube would then be dilated in the same Proportion as the Fluid is rarified. 2. That the lighter the Fluid, the more it is dilated by *Fire*. Thus Air, the lightest of all Fluids, expands the most, and after Air, Spirit of Wine.

Thus, says he, all the Motion in Nature, arises from *Fire* alone, and taking this away, all Things become immoveable. Upon the Absence of only a certain Degree of *Fire*, all Oils, Fats, Waters, Wines, Ales, Spirits of Wine, Vegetables, Animals, &c. become hard, rigid, and inert: And the less the Degree of *Fire*, the sooner and more violent is this Induration made. Hence if there were the greatest Degree of Cold; and all *Fire* were absolutely taken away, all Nature would grow into one concrete Body, solid as Gold, and hard as Diamond. But upon the Application of *Fire*, it would recover its former Mobility. Therefore, concludes he, every Diminution of *Fire*, is attended with a proportionable Diminution of Motion; and *vice versa*.

His Sentiment is, that this *Fire* he has here related, needs no Air or Pabulum to sustain or preserve it, for putting some Calx of Tin or Lead, in the exhausted Receiver of an Air-Pump, and applying a Burning-Glass so as the Faeces shall fall on the Calx, the Consequence will be a vehement Dilatation of the Calx, from the Center towards the Circumference, whereby the Receiver will be broke into a thousand Pieces. And if a Quantity of any essential aromatick Oil be poured in *Vacuo*, upon Spirit of Nitre, there will immediately arise a huge *Fire*, to the great Danger of the By-Standers.

He says, farther, that all the above-mentioned Effects of *elementary Fire*, may be increased divers Ways, viz. 1. By Attrition, or a swift Agitation of rubbing of one Body against another, that this is apparent in Solids, that every Body knows that a vehement Attrition of a Flint and Steel, will produce Sparks; so in Fluids, Cream by long churning to separate the Butter, will grow sensibly warm, and a Barometer renders the Effect still more discernable.

The more agitated, says he again, are solid, hard, and elastic Bodies, the more Points of Contract they have: The more intense the Force whereby they

they are struck against each other, the greater is their Motion; and the quicker the Returns of the Strokes, and the longer continued, the greater is the Heat produced.

Thus a Piece of Sponge rubb'd lightly and for a while against another, acquires no sensible Heat; but a large heavy Piece of Iron briskly rubbed against another in a cold Season (when Bodies are densest) will presently acquire an intense Heat, sufficient to fire Sulphur, Gun-powder, or the like; so a Knife whetted briskly on a dry rough Stone, shall yield Sparks of Fire; but if Oil or any fat Matter be interposed, no sensible Heat shall arise; and the Points of two Needles rubb'd against each other ever so strongly, or ever so long, will never grow warm; as only touching in a few Points.

From thence he infers, 1. That the Globules of the Cruor or red Blood, drove by the Force of the Heart against each other, or against the Sides of the Arteries, excite more Heat than the Globules of the Serum, or any other Humour in the Animal. 2. That those Parts abounding most in these Globules thus agitated, as the Heart, Liver, and Head, will be the hottest of all others: And the denser the Blood *ceteris paribus*, the greater the Heat, &c. 3. That the quicker the Contractions of the Heart are repeated, the greater will the Heat be.

The second Manner, in his Opinion, of increasing the Effect of *elementary Fire*, is by throwing a Quantity of moist or green Vegetables, cut down while full of Sap into a large Heap, and pressing them close down; the Result of which is, that they grow warm, smoke, and break into Flame.

The third Manner is, by the Mixture of certain cold Bodies; thus, Water and Spirit of Wine, first warmed, grow much hotter by the Mixture; so any of the heavy aromatick Oils, as of Cloves, Cinnamon, Sassafras, Guaiacum, &c. mix'd with Spirit of Nitre, grow exceedingly hot, and burst forth like Vulcano's, and the same may be said of Spirit of Nitre, and Steel-filings.

He says, that the like Effect may be had from dry Bodies; thus, pure Sulphur and Steel-filings, well ground and mix'd in equal Quantities, with Water enough to make them into a dry Paste, and laid an Hour or two any where, even under Ground, will smoke and emit Flame; and that with the greater Vehemence as it is more strongly press'd down.

The fourth is by Phosphorus, which is a Kind of Magnet, prepar'd from the Parts of Animals, that imbibes and retains Fire for many Ages.

But in all these Manners, says he again, it does not appear that any Fire is excited, or generated of what was not Fire before; for if in a severe Winter's Day, we rub a Plate of Gold briskly against another, they will both grow hotter and hotter by Degrees, till at length they become Red-hot, and at the Point of melting; and yet all this Time the Plates lose nothing of their Weight, but swell and grow bigger in all their Dimensions. Hence it follows that the Particles of the Gold are not converted by the Friction into Fire, but the Fire existed before; and all the Effect of the Friction, &c. is to collect and bring together a Quantity thereof, before dispersed throughout the Atmosphere.

In Effect, continues he, there is no making or producing of *Fire de novo*. All we can do, is, of sensible, to render it sensible, *i. e.* to collect it out of a greater Space into a lesser, and to direct and determine it to certain Places. The Sun also contributes much to the bringing of Fire to light, by Means of his rapid Motion round his Axis; whereby the fiery Particles every where diffused, are directed and determined in parallel Lines towards certain Places, where their Effect becomes apparent. Whence it is that we perceive the Fire, when the Sun is above the Horizon; but that when he disappears, his Impulse or Pressure being then taken away, the Fire continues dispersed at large through the æthereal Space. In Effect, there is no less Fire in our Hemisphere, in the Night-time than by Day, only it wants the proper De-

termination to make it perceiv'd.

He pretends that this *elementary Fire*, is present every where, in all Bodies, all Space, and at all Times, and that in equal Quantities; that go where you will, in the Top of the highest Mountain, or descend into the coldest Winter or most scorching Summer, by one or other, or all the Means above-mention'd, may Fire be collected; and that there is no assignable physical Point without Fire; no Place in Nature, where the Attrition of two Sticks will not render it sensible. That so long as Fire remains equably, and undetermined in any Place, it does not discover itself by any Effect. That in the severest Weather we perceive no Influence or Effect of Fire, when at the same Time, being collected by Attrition, it becomes manifest. That by changing Fire from its indeterminate State, and impelling it in converging Lines, its Movement is increased with the Phænomena of Burning-Glasses. But, that how Attrition, crude Vegetables, &c. contribute towards altering the Direction, &c. as Fire does, is not easily demonstrated.

He concludes, that on this *elementary Fire*, and the Effects thereof above-mentioned, depends all Fluidity of Humours, Juices, &c. all Vegetation, Putrefaction, Fermentation, animal Heat, &c. But that in what Manner soever, Fire is collected in Bodies, upon a Cessation of the collecting Cause, it soon disappears again, unless it be supplied with *Pabulum* or Fuel; and then he calls it a *culinary Fire*.

He means by *Pabulum*, or *Fuel of Fire*, whatever receives and retains Fire; and is consumed, or at least rendered sensible thereby; and says, with all other Philosophers, that the only *Pabulum* of Fire, in all Nature, is the Oil, Sulphur, or fat Bodies; and that Bodies are only Fuel, on Account of the Oil they contain. That hence, 1. All Vegetables, not too moist, nor too dry, afford such a *Pabulum*; particularly those which contain the greatest Quantity of Oil; as balsamick and resinous Woods, &c. 2. All vegetable and animal Coals, are a proper *Pabulum* for maintaining Fire; as being only the Parts of Animals and Vegetables, which have exhaled their Water and Salt, and retained the Oil alone inhering in a black Form in their Earth. 3. All Fossils, and bituminous Earths, Turfs, &c. 4. All Minerals, Sulphur, whether pure or joined with Earth, Stone, or Metals, as Pit-coal, &c. 5. The Fat and Dung of Animals. And, 6. Several Productions of Chymistry.

This Fire, says he, which burns combustible Bodies, requires Air to sustain it, which taken away, the Fire is immediately dissipated, as appears from the Experiments in *Vacuo*; and yet the Fire does not immediately bear or endure the Air, but always repels it; and by that Means forms a Kind of Vault, or aerial Furnace all round; which by its Weight and the Pressure of the incumbent Air, acts on all the Particles or Corpuscles that would make their Way through it; and thus retains the Fire, and applies it to the combustible Matter.

He pretends that the heavier the Air, the more vehement the Fire; and that accordingly, in still cold Weather, we observe the Fire to act with more Violence than in warm Weather: But he questions whether the Air retains Fire by its Weight alone (which Water itself would do) and whether its Elasticity does not contribute something thereto; as also whether there be not some farther Property in the Air, that has a Share in it.

He informs us, that this Fire in burning a combustible Matter affords a shining Fire, or a Flame, or both, according to the Diversity of Fuel; and frequently Smoke, Soot, and Ashes. That the shining or luminous Fire, seems to be elementary Fire, attracted towards the Parts of the Sulphur, or Oil, with such Force and Velocity as to move, and shake them very violently, whirl them about, divide and attenuate them, and thus render them volatile and ready to be expelled; while, in the mean Time, the Air making its

its Vault all round, restrains and keeps them in, directs them to the Sulphur, and keeps them still collected in their Place or *Pabulum*, till the combustible Matter is diffused all round. That the *Flame* seems to be nothing but a thick Sulphur agitated as before, by elementary *Fire*; so as the *Fire* is driven with a great Motion around the revolving Particles of the Sulphur. That *Soot* seems to be produced when *Fire* and Sulphur cannot break into a Flame; being a Sort of Coal consisting of a thick Sulphur; and an attenuated Oil with Earth and Salt. That *Smoak* seems to be the combustible Matter, when it begins to be relinquished by the elementary *Fire*: For if this *Smoak* be afterwards passed through a Flame, it will itself become a Flame as before. Lastly, that *Ashes* are the Earth and Salt; which the *Fire* leaves untouched.

He believes that *Fire* may be distinguished into *shining* and *not shining*; because there is *Fire* which does not emit Light, which, says he, is evident from a Piece of Iron taken out of the *Fire* before it be red-hot, which gives yet *Fire* to Sulphur.

He subdivides *shining Fire* into two Kinds: That which *warms*, as red-hot Iron; and that which does not *warm*, as that observed in putrid Fishes, rotten Wood, &c. the Oil whereof beginning to be agitated, and attenuated, produces Light, without any Heat, so far as the Thermometer may be a Judge.

Of *shining*, and at the same Time *warming Fires*, the principal, in his Sentiments, is that of the Sun, as it is called; though whether the *Fire* be really emitted from the Body of the Sun; or whether it be only the common, vague, universal *Fire*, determined by the Sun, he will not pretend to say. He pretends that this solar *Fire*, in calcining certain Bodies, makes some Addition to the Weight thereof. That thus Antimony exposed in the Focus of a burning Glass, will smother a considerable Time; and the greatest Part of it seems to evaporate in Fumes; but that if tried by the Ballance, it will be found to have gained in Weight. And that if it be again applied in the Focus of a large Glass, it will again emit Fumes; and yet still be increased in Weight.

Besides the solar he admits likewise, of a subterraneous *Fire*, which, he imagines, appears in digging under Ground: For the first Glebe, says he, next to the Surface, is warmed by the Heat of the Sun; and as you go deeper you will find it colder; whence in hot Countries, they have Conservatories of Ice at some Depth under Ground; till arriving at a certain Depth, viz. forty or fifty Foot, it begins to grow warmer, so as no Ice can there subsist: And yet at a greater Depth, it is so hot, as to take away Respiration, extinguish Candles, &c. And if the Miner will venture further, and carry a Candle along with him, he frequently sets the whole Place in a Flame; the sulphurous Fumes, rendered volatile by the subterraneous *Fire*, catching Flame from the Candle. Whence it appears, concludes he, that there is another Source of *Fire*, or another Sun, in the Bosom of the Earth, which giving Motion and Life to every Thing growing in, or upon the Globe; and even that the Centre of the Earth is meer *Fire*; which *Fire* is likewise argued to be perpetual, from Vulcano's or burning Mountains, which have been known to cast up *Fire* from the earliest Account of Time.

This pompous *Galimatias* of Boerhaave, which, the Effects of the *Fire* excepted, leave our Mind, as uncertain as it was on the Existence of a real elementary *Fire*, since it wants Demonstrations as well as satisfactory Proofs to ascertain it, is clearly refuted by the following System.

DES CARTES, 4 part. princip. num. 80. has determined, from the Beginning of the World, its *subtile Matter*, or first *Element*, to a perpetual and uninterrupted Motion, which Hypothesis appears to me the more commodious, and more agreeable to Reason.

Therefore where the Matter of the first *Element* glides through the *Meatus* of the Earth in a Quantity sufficient to exert its Strength, and to usher along with it Particles of the third *Element*, then it is said

to excite *Fire*, which forcing every where, the second *Element*, produces Light, and consume or destroys all it meets with in its Passage. For as the same Des Cartes observes, in the same Place above-quoted, as the Matter of the third *Element* floating in the second *Element*, forms the *Air*; likewise the same Matter, being carried away by the first *Element*, produces *Fire*.

This Sentiment of Des Cartes, borrows a very great Appearance of Truth from the Motions which happen in Cannons, and other such Instruments; for neither the *Air*, nor any other sensible Matter, can cause so much Devastation, or throw down so strongly built Edifices, as *Fire* does: Whence we must imagine certain insensible Matter agitated by an extraordinary and very rapid Motion, to which are to be attributed all those Effects as to their primary Cause. But as that Matter is of an incredible Thinness and Rapidity, and runs easily through the smallest Pores of all Bodies, if we conceive it to move alone, it produces no sensible Effect; but where it ushers along with it, and puts in Motion the harder Parts of the third *Element*, then running with an extraordinary Impetuosity against the Bodies it encounters, it shakes them so violently, that it destroys the Symmetry of their Parts, and separates them from one another.

This Reasoning is well enough confirmed by the Example of running Water; for if the Water alone falls within the Arches of a Bridge, its being very liquid, and consisting of very small Particles, it does no Prejudice to the Bridge; but if it carries along with a rapid Course, a Beam, or a Vessel, or some very large Flakes of Ice, then it shakes so violently the Bridge, that it utterly destroys it.

Therefore the Nature of *Fire* consists in two Things, according to Des Cartes, first, in the *subtile Matter*, which from the Beginning has always been agitated with a very violent Motion; secondly, in the Matter of the third *Element*, which floats in the first *Element*, and is carried away by it with an extraordinary Rapidity. Which Sentiment of Des Cartes I'll follow, provided he grants that the Particles of the third *Element* are sulphurous and nitrous; therefore:

The Sentiments of Des Cartes on *Fire*, are credible; provided he understands by the coarser Particles of the third *Element*, the nitrous and sulphurous Particles; or, which is the same, that *Fire* consists of sulphurous and nitrous Particles, agitated by the *subtile Matter*; since *Fire* seems to consist of those Particles which are the most proper, to explain its Nature, Properties and Effects; and that the sulphurous and nitrous Particles, agitated by the *subtile Matter*, are the most proper for those Purposes, is evident from the following Inductions.

First, It is absolutely necessary that the sulphurous and nitrous Particles should borrow the Rapidity of their Motion, from the incredible ones of the *subtile Matter*, to produce those surprizing Effects, admired in Cannons, and other such Instruments; for it is impossible that Motions so quick, and so vehement, should proceed from any where else, but from the extraordinary Rapidity of the *subtile Matter*; since neither the *Air*, nor any other ambient Body, can produce those Effects.

Secondly, The sulphurous Particles entertain and feed the *Fire*, either because they are very small, and inflammable, or easily agitated by the Matter of the first *Element*; or also, because they contain a great Quantity of volatile Salts, by which they are exploded and exhaled; whence all Bodies entirely destitute of Sulphur and Oil, as Water, Salts, Ashes, &c. are never conceived inflammable.

Thirdly, As those sulphurous Particles are too soft, and too flexible, to be capable to resist and break the harder Bodies they encounter with, they must be strengthen'd by the Accession of the solid Particles of the Nitre, which penetrate and destroy the most compact Bodies; hence it happens that the *Air* is felt and heard to enter, with some Noise, through the Clefts of a Room, where a *Fire* is lighted, to supply that

Fire

Fire with the nitrous Particles it abounds with. It is from thence, also, that lighted Coals in the Pneumatick Machine are extinguished, as soon as the Air has been pumped out.

Therefore *Fire* seems to consist of those Particles of the third *Element*, which are nitrous and sulphureous, and which are agitated by the violent Motion of the first *Element*.

This Proposition is confirmed by several, and very noted Experiments: First, by the Example of Gunpowder, which a Friar of the Order of St. Francis, and a great Chymist, called *Bertholdus Schwartzus*, a German, born at *Fribourg*, is said to have invented, in the fourteenth Century, for the Destruction of the human Race. This Powder is composed of ten Parts of Nitre or Salt-petre, of three of Sulphur, and of five of Coals, pounded and mixed together; where the Particles of that Powder are agitated by the violent Motion of the subtile Matter, it presently takes Fire, and explodes itself with a very great Violence into a larger Volume; and in that Explosion forces out with Impetuosity, either from Guns or Cannon Balls, which, with a great Noise, destroy the greatest Edifices; which could not be done without the violent Motion of the subtile Matter, and the Hardness and Rigidity of the nitrous Particles.

We must observe, that this Powder makes no Noise, but while confin'd within Paper, Guns, Cannons, &c. but there is another Sort of Powder, which though fired in open Air, and without being confined, excites likewise a very great Report; and which for that Reason is called *Pulvis fulminans*: This Powder is compos'd of three Parts of Nitre, two of Salt of Tartar, and one of Sulphur: If you put the least Quantity of it in a Spoon, and set it on a Fire, it will have the Report of a Gun.

Secondly, The same Sentiment is also supported by the Example of Wood, which having floated for several Days in Water, where it has reposed its Salts; that Wood being afterwards put in the *Fire*, gives a lesser Heat, than it had done, had it never been put in Water, nor lost its Salts.

Thirdly, There are not only wanted to make *Fire* saline and nitrous Particles, but likewise oleaginous or sulphurous ones: For Nitre alone put in a Crucible, and the Crucible placed on the *Fire*, or exposed to a burning Glass, does not take fire; but if Coals, which are sulphurous, be thrown into the same Crucible, presently the Nitre appears in Flames: From all which, and several other Experiments, we may easily conclude, that the Nature of *Fire* consists in sulphurous and nitrous Particles, agitated by the subtile Matter.

If I be asked why *Des Cartes's* Sentiment on *Fire* appears to me more probable than that of *Gassendi*? I'll answer, for two Reasons: 1. Because it seems more probable, that there is extant a Matter very subtile, agitated from the Beginning by God himself, and which gives Motion to all the other Bodies, than to imagine a certain natural Propensity to Motion, in the igneous Atoms. 2. If *Fire* is procreated when the Atoms, heretofore dispersed, assemble together, we could not give a very proper Reason why *Fire* could not be drawn from all sorts of Bodies indifferently; for those Atoms would be found in Water or the Earth heated; though it is not to be supposed that *Fire* can be extracted either from Water, or from the Earth, till after these Bodies have been resolved into the first Matter. Besides, it would be very difficult to conceive, how those Atoms could meet in one and the same Place, from the furthestmost Parts of an immovable Body, to produce *Fire*; for there is not so great a Quantity of them in every Part, as to be in no Need to bring them from the remotest Parts.

It may be objected, that when Lead is calcined, *i. e.* when it is so well dried by the Violence of the *Fire*, as to be reduced into a Powder very much like Chalk, a great Quantity of the sulphurous of its volatile parts are dissipated; notwithstanding which, the Lead increases in Weight; and that as that Increase

cannot proceed from any Thing else but from the igneous Particles intangled in the ramous ones of the Metal, there must be igneous Particles.

To this I'll answer; that the Increase of Weight in calcin'd Lead proceeds from the igneous Particles intangled in the ramous ones of the Lead, *i. e.* from certain substantial *Effluvia*, falling out from the Fire; but not from those Atoms of the *Epicureans*, which being collected together form the *Fire*.

The AIR, AER, which I place the first of my three *Elements*, is defin'd by *Aristotle*, *Lib. 2. De gener. & corrup. c. 3.* a hot and humid Element; though he had defin'd it better if he had said, that it was a liquid Element; for, in fact, the Air is liquid or fluid, and compressible, not hard. It may also be called dry, not humid; since it dries the moist Bodies, and not moistens the dry ones.

But as this Distinction of *Aristotle* does not render us wiser with regard to the Nature of the Air, we could wish that some Body else had been so kind to give us some clearer Explanation of the Nature of the Air; for as it does not fall under our Senses, and its Particles are not to be separated or analysed by Chymistry, it follows hence, that we scarcely know any thing of its Nature, but by mere Suppositions.

Des Cartes, 4 part. Princip. Num. 45. refers the Particles of the Air to the third Element; but says, that they are so infinitely small, and so disunited, that they follow easily the Motion of the second Element in which they swim; and are by it exploded and dilated: Therefore as *Fire*, according to the same *Des Cartes*, is nothing else but some Particles of the third Element, swimming in the first, by which they are violently agitated: Likewise the Air and the other Liquors, are nothing but the Particles of the third Element floating in the second.

Note, That the modern Philosophers called the Air by two different Names; or that they understand it in two different Manners; *viz.* for the *Aether*, or ætherial and celestial Substance, which is not different from the third Element of *Des Cartes*; or for the *Elementary Air itself*; which is either pure, or more subtile, as that breathed on the highest Mountains; or impure and coarser, the nearer it approaches the Earth, and the Waters; because then, mixed with the Exhalations of the one, and the Vapours of the other: It is of this *Elementary Air* we design to speak in this Place.

Dr. Hook, and some others, will have this *Elementary Air*, to be no other than the *Aether* itself; or that fine, fluid, active Matter, diffused through the whole Expanse of the celestial Regions: Which coincides with *Sir Isaac Newton's* Subtile Medium, or Spirit. In this View it is supposed a Body sui generis, ingenerable, incorruptible, immutable, present in all Places, in all Bodies, &c.

Others, considering only its Property of Elasticity, which they account its essential and constituent Character; suppose it mechanically producible; and to be no other than the Matter of other Bodies altered, so as to become permanently elastick. *Mr. Boyle* gives us several Experiments which he made for the Production of Air; taking Production for the obtaining a sensible Quantity thereof, from Bodies wherein it either did not appear at all, or in so great a Plenty. Among the several Ways of doing this, he observes, that the best for Practice, are Fermentation, Corrosion, Dissolution, Decomposition; the boiling of Waters and other Fluids, and the mutual Action of Bodies, especially saline ones upon each other. He adds, that various solid and mineral Bodies, unsuspected of Elasticity, being plunged in corrosive unelastick Menstrua, will, by a Communion of their Parts in the Conflict, afford a considerable Quantity of permanently elastick Air.

Sir Isaac Newton is of the same Sentiment, and says that the Particles of dense, compact, and fixed Substances, cohering by a strong attractive Force, are not separable without a vehement Heat, or perhaps not

not without Fermentation; and such Bodies being at length rarified by such Heat or Fermentation, become true permanent *Air*. Thus, the same Author adds, Gun-powder generates *Air* by Explosion.

We have here, therefore, not only the Materials whereof *Air* should be made, but the Means of doing it; with Regard to which the *Air* is divided into real or permanent, and apparent or transient. For all that appears to be *Air*, does not continue such, is evident from the Instance of an *Æolipide*; the Water of which being sufficiently rarified by the Fire, rushes out into a sharp whistling Blast, perfectly resembling *Air* while the Motion lasts; but soon loses that Resemblance, especially in the Cold, and returns by Condensation into its Original Water: And the same may be observed of Alcohol of Wine, and other subtile and fugitive Spirits raised by Distillation: Whereas real *Air* is not reducible by any Compression, Condensation, or the like, into any other Substance besides *Air*.

Water, then, though it may put on an aerial Nature for a while, yet is not capable of persisting therein, and the same may be said of other Fluids. The farthest they can go is to become a Vapour, which is the Matter of the Fluid rendered much rarer, and put in a brisk Motion. For a Substance to become permanent *Air*, it must be of a fix'd Kind; otherwise it is not capable of undergoing the Alteration necessary to be induced in it; but gives way and flies off too soon. So that the Difference between permanent and transient *Air*, amounts to the same as that between Vapour and Exhalation, the one being dry, the other moist.

These Authors go a little farther yet, and suppose this elastick Property of *Air*, to depend on the Figure of its Corpuscles, which they suppose to be ramous: Some will have them so many minute *Flacculi*, resembling Fleeces of Wool; others conceived them rolled up like Hoops, and curl'd like Wires, or Shavings of Wood, or coiled like the Springs of Watches, and endeavouring to restore themselves by Virtue of their Texture; so that to produce *Air*, must be to produce such a Figure or Disposition of Parts; and those Bodies only are proper Subjects, which are susceptible of such Disposition; of which Fluids from their Smoothness, Roundness, and Slipperiness of their Parts are not.

But Sir *Isaac Newton* puts the Thing another Way; such a Texture he thinks by no Means sufficient to account for that vast Power of Elasticity observ'd in *Air*, which is capable of diffusing above a Million of Times more Space than it before possessed. But as all Bodies are shewn to have an attractive and a repelling Power; and as both these are stronger in Bodies, the denser, more solid, and compact they are; hence it follows, that when by Heat, or any other powerful Agent, the attractive Force is surmounted, and the Particles of the Body separated so far as to be out of the Sphere of Attraction; the repelling Power commencing thence, makes them recede from each other with a strong Force, proportionable to that wherewith they were before coherent; and thus they become permanent *Air*. Hence, says the same Author, it is that the Particles of permanent *Air*, are grosser, and arise from denser Bodies, than those of transient *Air*, or Vapour: True *Air* is more ponderous than Vapour, and a moist Atmosphere lighter than a dry one.

But after all, there may be still Reason to doubt, whether the Matter thus produced from solid Bodies have all the Properties of *Air*; and whether such *Air* be not transient, as well as that from humid Ones, though not to that Degree.

Mr. *Boyle* argues, from an Experiment made in the Air-Pump with lighted Match, that those light and subtile Fumes into which the Fire itself shatters dry Bodies, have no such Springs as *Air*; since they were unable to hinder the Expansion of a little *Air* included in a Bladder they surrounded. Yet in some subsequent Experiments by dissolving Iron, either in Oil of Vitriol and Water, or in Aqua-fortis, a large aerial Bubble was produced, which had a real Spring, so as to hinder the surrounding Liquor from regaining its

Place; and which, by the Application of a warm Hand, readily dilated itself like other *Air*, and broke into the Liquor in several succeeding Bubbles; and even through the Liquor into the open *Air*. He farther assures us, that he procured a real elastick Substance from divers other Matters; as Bread, Grapes, Must, Ale, Apples, Peas, Beef, &c. and some Bodies by only burning them in *Vacuo*, particularly Paper, Harts-horn, &c. which yet, upon farther Examination, was so far from being pure *Air*, that Animals inclosed in it, not only could not respire it without Harm; but even died sooner than in *Vacuo*, where there was nothing like *Air*.

The Members of the Royal Academy of Sciences at *Paris*, have observed, that the Property of Elasticity is so far from constituting *Air*, that it is rendered more elastick by the Admixture of some other Matters along with it, than it is in its Purity. Thus from some Experiments of M. *de la Hire* at *Paris*, and of M. *Stancari* at *Bologne*, M. *Fontenelle* assures us, that *Air* moistened with Water, is considerably more elastick than the dry. But it must not be omitted that Dr. *Jurin* explains the Experiments another Way; and endeavours to shew that the Conclusion does not necessarily follow from them.

My own Sentiment of the *elementary Air*, is, that it is compos'd not of the Vapours of the Sun, or of Fumes, as the *Stoicians* have imagined, but of infinitely smaller Particles, or Filaments, which in *Des Cartes's* Opinion, float in the æthereal Substance; that those Particles are of their Nature, and in the Symmetry of their Mechanism, so perfect, and so justly adapted to the Use they were designed for from their first Configuration, *viz.* the Conservation of every Individual, that they are no otherwise subject to Changes or Alterations but by their intimate or strict Union with the gross Corpuscles of the ambient Atmosphere, which retard more or less their natural Elasticity, according as they are nearer the Earth, or farther from it. That the great Number of Experiments which have been made on the *elementary Air*, cannot prove that there are two different Kinds of *Air*, *viz.* the one *permanent*, and the other *transient*; but only that it has different Effects, according to the different Kinds of Vapours or Exhalations it is mix'd with; and that the more those Vapours are exalted and rarified by the natural Heat of the Sun, which at the same Time spur on the Elasticity of the *Air*, and thereby help it to shake off the heavy Burden it is loaded with, the purer is the *Air* we breathe; which is clearly evidenced by the great Difference which is found between the *Air* on Mountains, and other high Places, from that in Valleys, Caves, marshy Grounds, &c. which Mixture of Vapours and Exhalations, with the aerial Particles, makes *Boerhaave* confound the *elementary Air* with them, and mistakes it for an universal Chaos, or Coluvies of all the Kinds of created Bodies.

From this Mixture of Exhalations and Vapours with the aerial Particles (which Mixture is indispensably necessary, for the *elementary Air* could never be breathed pure as it is naturally) it is concluded that the three Kingdoms, *viz.* the *Fossil*, *Animal*, and *Vegetable*, are found in it.

In fact, the whole *fossil Kingdom* must necessarily be found in the *Air*, since all Kinds of Salts, Sulphurs, Metals, &c. are convertible into Fume, and thus capable of being mix'd with the *Air*. Gold itself, the most fix'd of all natural Bodies, is found to adhere close to the Sulphur in Mines; and thus to be raised along with it.

All the Parts of the *animal Kingdom*, must also be in the *Air*; for besides the copious Effluvia continually emitted from their Bodies by the vital Heat, in the ordinary Course of Perspiration; by Means whereof an Animal in the Course of its Duration, impregnates the *Air* with many Times the Quantity of its own Body; we find that any Animal when dead, being exposed to the *Air*, is in a little Time carried wholly off, Bones and all. Whence we may also very well suppose, that aerial Particles must necessarily swim in a

vast Ocean of excrementitious Matters of Animals.

As to *Vegetables*, nothing of that Class can be supposed wanting; since we know that all *Vegetables*, by Putrifaction, become volatile; even the earthly or vascular Part, in Time follows the rest.

Of all the *Effluvia* composing this vast Ocean, the Atmosphere; the principal are the Saline, which Authors suppose to be of the nitrous Kind; though there be no Doubt of all Sorts of *Effluvia*, Vitriolick, Aluminous, Sea-Salt, &c. Mr. Boyle even observes, that there be many compounded Kinds of Salts in the Air which we have not on Earth, arising from different saline Spirits, fortuitously mingling and mixing together. Thus the Glass-windows of antient Buildings, are sometimes observed to be corroded, as if they had been Worm-eaten, though none of the Salts above-mentioned have the Faculty of corroding Glass.

The Sulphurs too must make a considerable Article in the Air; on account of those many Vulcano's, Grotto's, Caverns, and other Spiracles, chiefly affording that Mineral dispersed through the Globe. And the Associations, Separations, Attritions, Dissolutions, and other Operations of one Sort of Matter upon another, may be considered as a Source of numerous other neutral or anonymous Bodies unknown to us.

Air, in this general Sense, is one of the most considerable and universal Agents in all Nature; being concerned in the Preservation of Life, and Production of most of the Phænomena relating to our World.

WATER, which is my second *Element*, is defined by Aristotle, *Lib. 2. de generat. & corrupt. lib. 3. a cold and humid Element*: But this Definition does not explain the Nature of Water, nor can satisfy our Curiosity so as to hinder us from searching it somewhere else.

GASSENDI, *Señ. 3. physic. lib. 6. de qualitat. rerum. c. 7.* after *Lucretius* and the other *Epicureans*, has established the Nature of Water, and other Liquids, in light and round Particles, which being separated by several Interstices or small Vacuities, obey easily the *Tact*; and as they are lubrick, they flow easily, unless they be retained within Bounds. Thus *Lucretius* explains it, *lib. 2. de rer. natura, v. 451. & sequent.*

*Illa quidem debent ex levibus atque rotundis
Esse magis, fluido quæ corpore liquida constant;
Nec retinentur enim inter se glomeramina quæque,
Et procurfus item in proclive volubiles extat.*

Though the *Epicureans* imagine the Particles of the Fire to be round likewise; they, notwithstanding suppose them a great deal more subtle, and swifter in Fire than in *Water*, because Fire can penetrate all Sorts of Bodies which *Water* cannot do, especially hard Bodies.

The same *Gassendi*, to explain the Nature of *Water* and of other Liquids in a clearer Manner, makes use of the Example of Wheat and of Powder; for as Grains of Wheat, when put in a Heap together, being in no Manner hooked in, can easily be separated, and unless kept back, are soon dispersed; the same can be said of Powder, and the same of *Water*; but with this Difference that the Particles of *Water*, being a great deal smaller, they are not so easily heaped up, as the Grains of Wheat, Powder, &c. though the same Author does not suppose them entirely destitute of Extension, as *Galileus*, who resolves *Water*, not only into Atoms, but likewise into mathematical Points, indivisible and inextended.

Lastly, DES CARTES, 4. *part. princip. num. 48.* is of Opinion, that the Particles of *Water*, are oblong, smooth, light, and flexible; which is also my Sentiment, and which I prove thus:—The minute and insensible Particles of *Water*, are to be supposed to have that Figure, which is the most proper to explain the Phænomena of *Water*; but there is no other Figure than that above-mentioned, *viz.* if it be oblong, smooth, and flexible, to explain the Phænomena of *Water*, for if they be of that Figure, and lying on one another like Eels, it will follow hence:

1. That they must be fluid, because the minuter they are, the easier they will be continually agitated by the ætherial Substance, or the second *Element*. Whence the Spirit of Wine the Particles thereof are very small, and easily moved by the ætherial Substance, is never hardened into Ice, or frozen: Therefore Fluidity does not consist in the globulous Figure of the Particles, which Figure would not answer, besides, the other Phænomena of *Water*, *viz.* its Virtue of moistening certain Bodies, and of washing Cloaths, &c.

2. As the Particles of the *Water* are conceived to lie upon one another, and to touch one another mutually, it follows that *Water* cannot be much pressed; and therefore it is not necessary to give them, for that Purpose, a cubic Figure, as some Authors have done; since that Figure is not at all proper for a liquid and moveable Body, but rather for a solid and hard one. We must however observe here, that *Water* can be a little pressed; for if it be inclosed in a concave leaden Ball, to which a Pipe is adapted, with a Cock; and that Ball be stricken with a Hammer, the Cock being opened, the Water will run out; which is a Proof that by striking the Ball, the Water has been pressed.

3. From that Figure of the Particles it appears, why *Water* is easier resolved into *Water* than Oil; because the smooth and lubrick Particles of *Water*, fly and quit easier one another, than the ramous ones of Oil, which are tied faster together. Whence it is that *Water* is more proper to wash, because it runs easily, and runs through the Pores of the Cloth; whereas Oil, whose Parts are ramous, is more adherent either to itself, or to the other Bodies.

But as the flexible Particles of *Water* are not capable to incise the Sordes, most of them oleaginous and fat, Ashes are mix'd with it in the Lixiviums, which contain much Salt, and from which by the Affusion of *Water*, are drawn the saline Particles, which being rigid and penetrating, divide and incise all the Grease, separate and carries it off of the Cloth. Whence it is found, that Wood-Ashes which have been long in *Water*, whereby they have been divested of all their Salts, are of very little Use in Lixiviums.

We know also by Experience, it is very proper for washing Cloth; for it being composed of a viscous Matter, and a great deal of Salt, it happens, first, that the ramous Particles of the greasy Dirt, are intangled in that viscous Matter, and afterwards, being incised by the Salts, they are carried away by the *Water*.

4. From the same Figure of those aqueous Particles it is easily understood common Salt, put in a Frying-pan, with Oil or melted Butter, and afterwards placed over the Flame, is not dissolved; because the ramous and thin Particles of the Oil or Butter cannot penetrate the Pores of the Salt; but if some *Water* be poured upon it, then its oblong, smooth, and light Particles will penetrate the Salt, and dissolve its Particles.

Therefore it is more likely, that the Particles of the *Water* are oblong, smooth, light, and flexible, than of any other Figure.

Boerhaave denies the Fluidity of the *Water*, and maintains it to be of the chrystaline Kind; since wherever a certain Degree of Fire is wanting to keep it in Fusion (says he) it readily grows into a hard Glebe, under the Denomination of Ice. Mr. Boyle is much of the same Sentiment. Ice, he observes, is commonly reputed to be *Water* brought into a preternatural State by Cold: But with regard to the Nature of Things, and setting aside our arbitrary Ideas, it might as justly be said, that *Water* is Ice preternaturally thawed by Heat.

Several Authors have imagined that there is no pure *Water* in Nature; and Boerhaave argues, that there has been no Expedient found yet, to make it such. That Rain-Water, which seems the purest of all those we know of, is replete with infinite Exhalations of all Kinds, which it imbibes from the Air, so that filtrated and distilled a thousand Times there still remain Vapours. Such a Water gathered from the Roofs of Houses, is a Lixivium of Tiles, Slate, or the like; impregnated with

with the Dungs and Fæces of the Animals, Birds, &c. deposited thereon; and the Exhalations of numerous other Things. That all the *Rain-Water* gathered in Cities, must at least be saturated with the Smoak of a thousand Chimneys, and the various Effluvia's of Numbers of Persons, &c.

These Authors support their Sentiment by pretending, that if we percolate Water through Sand, or squeeze it through Pumice, or pass it through any other Body of the like Kind, you will always have Salt remaining; nor can Distillation render it pure; since it leaves Air therein, which abounds in Corpuscles of all Sorts. That the purest of all *Waters* we can any way arrive at, is that distilled from Snow, gathered in a clear, still pinching Night, in some very high Place; taking not but just the outer or superficial Part thereof. That by a Number of repeated Distillations, the greatest Part of the Earth and other Fæces may be separated herefrom; and that this is what we must be contented to call pure *Water*.

Mr. Boyle relates that a Friend of his, by distilling a Quantity of *Water* an hundred Times, found at length, that he had got six Tenths of the first Quantity in Earth: Whence he concludes, that the whole *Water*, by further prosecuting the Operation, may be converted into Earth.

Boerhaave is of a contrary Sentiment, and rather concludes, that (it being impossible to remove or pour that *Water* into a Vessel, without mixing some Dust therewith) the *Water* thus often distilled, might acquire still new Earth from the Dust floating in the Air, and the Instruments employed in the Operation. He assures us, that after distilling some very pure *Water* by a gentle Fire, the Space of four Months, it appeared perfectly pure; and yet leaving it to rest in Vessels exactly closed, it would conceive a slender Kind of weedy Matter, somewhat like the Stamina of Plants, or the little Tufts of a Mucilage: Yet Schottus saw *Water* in Kircher's Musæum, that had been kept in a Vessel, hermetically sealed, upwards of fifty Years, yet still remained clear and pure, and stood to the same Height in the Vessel as at first, without the least Sign of Sediment. Boerhaave cannot believe Schottus; for he says that he is convinced no body ever saw a Drop of pure *Water*; that the utmost of its Purity known, only amounts to its being free from this or that Sort of Matter; and that it can never, for Instance, be quite deprived of Salt; since Air will always accompany it, and Air has always Salt.

But all these Objections avail nothing against *Water*, being one of the vulgar Elements; since if it was essential to the Existence of those Elements, that they should be pure, and free of all heterogeneous Bodies, there would be no Elements; since they all receive more or less into their Composition, those heterogeneous Particles; and what is the more capable to convince us, that *Water* is really one of the vulgar Elements, is, that most Authors who have treated of this Subject, imagine that *Water* is diffused every where, and present in all Places where there is Matter. That not a Body in all Nature but will yield *Water*: That Fire itself is not without *Water*. That a single Grain of the most fiery Salt, which in a Moment's Time will penetrate through a Man's Hand, readily imbibes half its Weight of *Water*, and melts even in the driest Air imaginable. Thus Salt of Tartar placed near the hottest Fire, will attract or imbibe *Water*, and, by that Means increase considerably its Weight, in a small Time: So, in the driest Summer's Day a Pewter Vessel with Ice in it, brought up from some cold subterraneous Place, into the hottest Room, will immediately be covered over with little Drops of *Water*, gathered from the contiguous Air, and condensed by the Coldness of the Ice.

Even dry Bodies afford a plenteous Stock of *Water*. For Oil of Vitriol being exposed a long Time to a violent Fire to separate all the *Water* from it, as much as possible; will afterwards, by only standing a few Minutes in the Air, contract fresh *Water* so fast, as soon to afford it as plenteously as at first. Hartshorn

kept forty Years; and turn'd as hard and dry as any Metal, so that if struck against a Flint, it will yield Sparks of Fire; yet being put into a Glass Vessel, and distilled, will afford one eighth Part of its Quantity of *Water*. Bones, dead and dried twenty-five Years, and thus become almost as hard as Iron; yet by Distillation, have afforded half their Weight of *Water*: And the hardest Stones, ground and distill'd, do always discover a Portion thereof.

Though Vipers are esteemed very hot in Operation, and will in a convenient Air, survive for some Days, with the Loss of their Heads and Hearts, they notwithstanding abound strongly in *Water*. Human Blood itself, as spirituous and elaborate a Liquor as it is reputed, so abounds in *Water*, that out of seven Ounces and a half, have been drawn, by Distillation, near six of Phlegm; before ever any of the other Principles began to rise.

Thales, Milesius, and some other Philosophers, have imagined that all Things were made of *Water*; which Opinion, probably, had its Rise from the Writings of Moses, where he speaks of the Spirit of God moving upon the Face of the Waters. But Mr. Boyle does not conceive the *Water* here mentioned by Moses, as the universal Matter, to be our elementary *Water*: We need only suppose it an agitated Congeries of a great Variety of seminal Principles, and of other Corpuscles fit to be subdued, and fashioned by them; and it may yet be a Body fluid like *Water*, in Case the Corpuscles it was made up of, were, by the Creator, made small enough, and put into such an actual Motion, as might roll and glide easily over one another.

However, Basil, Valentine, Paracelsus, Van Helmont, Sendivogius, and others, have maintained the same Principle, viz. that *Water* is the elemental Matter, or *Stamen* of all Things, and suffices alone for the Production of all the visible Creation.

Helmont endeavours to prove this Doctrine from an Experiment, wherein burning a Quantity of Earth till all the Oil was consumed, and then mixing it up with *Water* to draw out all the Salt, and putting this Earth thus prepared into an earthen Pot, which nothing but Rain-Water could enter; yet a Willow planted therein, grew up to a considerable Height and Bulk, without any sensible Diminution of the Earth; whence he concluded that the *Water* was the only Nutrient of the vegetable Kind, as Vegetables are of the Animal. The same Thing is infer'd by Mr. Boyle from a parallel Experiment; and the whole is countenanced by Sir Isaac Newton, who observes that *Water* standing a few Days in the open Air, yields a Tincture; which like that of Malt, by standing longer, yields a Sediment and a Spirit, but before Putrefaction is fit Nourishment for Animals and Vegetables.

But Dr. Woodward shews the whole a Mistake: *Water* containing extraneous Corpuscles, some of these, he shews, are the proper Matter of Nutrition; the *Water* being still found to afford so much the less Nourishment, the more it is purified by Distillation. Thus a Plant in distill'd *Water*, will not grow so fast as in *Water* not distilled; and if the *Water* be distilled three or four Times over, the Plant will scarce grow at all, or receive any Nourishment from it. So that *Water*, as such, does not seem the proper Nutrient of Vegetables, but only the Vehicle thereof, which contains the nutritious Particles, and carries them along with it, through all the Parts of the Plant. Hence, says he, a Water-Plant, v. g. a *Nasturtium* brought up in a Vessel of *Water*, will be found to contain the more Salt and Oil, the muddier the *Water* is: Whence he concludes, that *Water* nourishes the less, the more it is purged of its saponaceous Salts; that in its pure State, it may suffice to extend or swell the Parts, but affords no new vegetable Matter.

Helmont, however, carries his System still further, and imagines, that all Bodies may be reconverted into *Water*. His Alkabeft, he affirms, adequately resolves Plants, Animals, and Minerals, into one Liquor; or more, according to their several internal Differences of Parts; and the Alkabeft being abstracted from these

Liquors in the same Weight, and with the same Virtues as when it dissolved them; the Liquors may, by frequent Cohobations from Chalk, or some other proper Matter, be totally deprived of their seminal Endowments, and return at last to their first Matter, insipid *Water*.

Thus much is pretended, that mix'd Bodies do all resolve by Fire, into Phlegm or *Water*, Oil, Spirit, Salt, and Earth; each of which is found to contain *Water*.

It is supposed that Spirits, for instance, cannot be better represented than by Spirit of Wine, which of all others seems freest from *Water*; yet *Helmont* affirms, it may be so united with *Water*, as to become *Water* itself. He adds, that it is materially *Water*, only under a sulphurous Disguise. According to him, in making *Paracelsus's* Balsam-Samech, which is nothing but *Sal Tartari* dulcified, by distilling Spirit of Wine from it, till the Salt be sufficiently saturated with its Sulphur, and till it suffers the Liquor to be drawn off, as strong as it was poured on; when the Salt of Tartar from which it is distilled, has retained or deprived it of the sulphurous Parts of the Spirits of Wine, the rest, which is incomparably the greatest Part of the Liquor, will turn to Phlegm. Corrosive Spirits, according to Mr. *Boyle's* Observation, abound in *Water*; which may be observed by entangling and so fixing their saline Parts, as to make them corrode some proper Bodies; or else by mortifying them with some contrary Salt, which will turn them into Phlegm.

And as to Salts, Salt of Tartar well calcined, being laid to liquify in the Air, will deposite on Earth; and if it be then committed to Distillation, will yield a considerable Quantity of insipid *Water*; inasmuch, that if it be urged with a vehement Fire, the Salt will, almost, all vanish, and nothing saline remain, either in *Water* or the Earth. Whence *Helmont* concludes, that all Salts may be converted into *Water*; add that Sea-Salt, recovered from its own acid Spirit, and Oil of Tartar, resolves into *Water*, as much as into Oil of Tartar.

Lastly, Oils run in great Measure into *Water*; and it is probable, as they pretend, that it may be converted wholly into the same.

My own Sentiment on this Subject, is entirely different from either of these Authors; for I neither believe with *Basil*, *Valentine*, *Van Helmont*, *Newton*, &c. that *Water* is the common Matter of all Bodies; nor with Mr. *Boyle*, that all Bodies, indifferently, can be

resolved into *Water*; nor with Dr. *Woodward*, that *Water* serves as a Vehicle for the nutritious Juices in Vegetables; which last Opinion I have refuted in my Treatise of *Botany*. But I imagine, that the ambient Atmosphere, being composed of an infinitely greater Quantity of aqueous Particles than of any other Matter, and the Air we breathe, and which is likewise necessary for the Support of Vegetables, floating continually in those aqueous Particles, ushering them along with it, either in Animals, Vegetables, &c. by its perpetual Circulation through the Pores of those different Substances, in a greater Quantity than any other Matter; *Water* must consequently be predominant in them, but not so as to absorb all other Substances, or metamorphise them into its own, otherwise none of those Bodies would ever be brought to Perfection, or subsist long; since we see by a daily Experience, that those Bodies where *Water* is predominant, either in Animals, Vegetables, &c. are always in a cacochimous State, and inclining toward their Dissolution.

The EARTH, which is my third Element, is defined by *Aristotle*, *Lib. 2, de generat. & corrupt. c. 3. an Element cold and dry*: Which Definition contains the two Qualities of the Earth, for in fact it is cold and dry.

DES CARTES, 4 part. princip. num. 1, and 2. composes the Earth of Particles of the third Element wrapp'd in together. *Gassendi*, *Sezt. 1, Physic. Lib. 6, de qualit. rerum. c. 7.* teaches, with the *Epicureans*, that it consists of hooked Atoms adhering mutually to one another. The one and the other's Opinion, answers very well the Idea which we should form to ourselves, that the Earth is compos'd of fix'd and solid Particles; but if those Particles be compos'd of hooked Atoms, as the *Epicureans* pretend, or rather of smaller Particles, divisible in *indefinitum*, as *Des Cartes* imagines, is what cannot be easily determined.

Robault is of *Des Cartes's* Sentiment, that the Earth is composed of Particles of the third Element, which are no otherwise different, says he, from those which compose the Spots observed in the Sun, but in that those which compose the Earth, are narrower, united and tied together, and therefore compose a Body thicker and more compact. And that as those Parts of the third Element are of irregular Figures, and therefore capable but of a very irregular Connection and Composition; hence proceed all the Inequalities which we see in the Earth.

E M B A S S A D O R.

EMBASSADOR, or AMBASSADOR (from the corrupt Latin *Ambasciator*, form'd of *Ambasellus*, an old Word borrow'd from the *Gauls*, signifying Client, Servant, Domestick, or Officer) is a publick Minister, sent from one sovereign Prince, as a Representative of his Person, to another, or to some great Republick.

EMBASSADORS, are either Ordinary, or Extraordinary.

EMBASSADOR in Ordinary, is he who resides stably in the Court of another Prince, to maintain a mutual good Understanding, look to the Interest of his Master, and transact such Affairs as may occur. These *Embassadors* are but of modern Invention: It is not above 200 Years ago, since they were first heard of; till then, all *Embassadors* were Extraordinary, and retired as soon as they had dispatch'd the Affair they were sent upon.

EMBASSADOR Extraordinary, is he who is sent to a Prince's Court on some particular and emergent Occasion; as to conclude a Peace, or Marriage; make a Compliment, or the like.

Indeed there is no essential Difference between Ordinary and Extraordinary *Embassadors*, their Errand is

all; and they equally enjoy all the Privileges and Prerogatives, which the Laws of Nations decree.

The Wisdom and Prudence of a Prince, appears in the Choice he is pleas'd to make of his *Embassadors* for foreign Courts, for on that Choice depends often the whole Success of his Enterprizes, Negotiations, &c. and from it his Crown receives either an Addition of Lustre, or its Radiancy suffers an Eclipse.

No other human View or Consideration, should engage a Prince to prefer his Subject to that eminent Post, but the perfect Knowledge he has of his great Capacity, approv'd Fidelity, and Zeal for the Interest of his Nation, and the Glory of his Prince; Birth, Fortune, Favour, &c. ought to be set aside, when not supported with personal Merit, profound Knowledge, and a great Dexterity in the Management of foreign Affairs. It is true, that Birth and Fortune can much contribute towards supporting the Honour of the Prince the *Embassador* represents; but those two Qualities, without Capacity, will never make his Negotiations succeed; the Person of an *Embassador*, the great Figure he makes may be admired, and his illustrious Birth respected; but his Want of Capacity, though disguised under that pompous Appearance, will

will be despis'd. The Court, such an *Embassador* is sent to, will confess that the Prince could not make Choice of a more illustrious Person, to give a grand Idea to a foreign Nation of his Grandeur and Glory, but will conclude, perhaps, from the Want of Capacity in the Minister, that the Master himself is *not a Solomon*.

Princes often repose themselves in the Choice of their *Embassadors* to foreign Courts, on a *Prime Minister* or Favourite; so that it happens sometimes, that no other Qualities are required in the *Embassador*, but a servile Complaisance, to execute without the least Reluctancy, the Orders of the Minister, and follow blindly his Dictates; so that an *Embassador* is rather too often (at least in this present Age) the Tool of a Minister, or a meer Machine, whereof a Prime Minister, or Favourite, is a Master Spring, than the Representative of a Crown Head. I could even go farther, and say, that sometimes *Embassadors* are but the Bankers, or rather Agents of Ministers, or Favourites, employ'd only to remit to them, the infamous Price they have set at the Honour of the King their Master, and the Interest and Security of his Subjects. And as no Person of Merit and Distinction, would accept of such Employment, it is not surprizing if *Embassies* are so often filled up with Wretches, who are not only a Scandal to their Character, but even to the Country where they are born. It is true, that as they have not a true Notion of the Eminency of their Post, which cannot be supported without vast Expences; a Minister, by sending them, saves and put in his Pocket, half of what he should be obliged to give to another, who would do Honour both to his Prince and to himself.

But is it so necessary then, that an *Embassador* should be a Person of so much Merit? Has he any Thing else to do, but to live splendidly, keep a magnificent Equipage, (*i. e.* a vast Number of Servants in Livery, to crowd behind his Coach when he goes out, and several Sets of beautiful Horses) to appear often at Court, to treat often the Secretaries of States, and other Officers of the Crown; to affect a certain Gravity, and speak in Monosyllables, and with Circumspection, to make People believe that he is afraid to betray his Secret, though, perhaps, at the same Time, he is Master of none; and to be always upon the *qui vive*, lest some other Minister, should in publick Assemblies or Ceremonies, take the Precedency of him?

I must confess, that if these were all the Duties of an *Embassador*, a Person of Merit would scorn the Character; but they are of a quite different Kind, and every one of such Consequence, that he who neglects even the least of them, forfeits his Character and Honour; and if the most essential, his Fidelity to his Prince, and consequently his Life.

I reduce all the Duties of an *Embassador*, to three Chiefs or Articles, *viz.* his Duties to himself as an *Embassador*; his Duties to the Prince, whose Person he has the Honour to represent at a foreign Court; and his Duties to his own Nation.

The Duties of an *Embassador* to himself, and in which his Honour, Credit, and Reputation are chiefly interested, consist in rendring himself worthy of the great Trust reposed in him, by studying with an indefatigable Assiduity, all the most intricate Rules of his Art; that he may be capable to conduct a Negotiation with Prudence and Dexterity, and to avoid being surpriz'd by the captious Evasions, Subterfuges, Ambiguities, and other Crafts of the foreign Ministers he treats with; knowing perfectly well the Genius of those Ministers, their Character, the Motives they are actuated by, what can most influence them, and the real Signification of all the Terms us'd in Negotiations or Treaties; lest through Want of Knowledge, Experience, and Dexterity, he should be led to transact any Thing contrary to his Instructions, against the Glory of his Prince, and the true Interest of his Nation. Which makes me believe, that he should have very well studied all the Negotiations, Treaties, &c.

which at different Times, and in different Ages, have been carried on, or concluded between both Nations; make his Remarks upon them, in order to imitate as much as possible, those of his Predecessors, who have carried on a Negotiation with most Dexterity, and to the greatest Advantage; and to avoid the Miscarriages and Blunders of others. He should also perfectly well understand the true Interest of the several Courts of *Europe*; but more particularly of his own, and of those he treats with; that when in Competition, he may not suffer any Inroachments on those of his Prince, in the Treaties he negotiates for him with foreign Princes; nor condescend to any new Pretences, which have not the Sanction of former Treaties; nor suffer that any old and obsolete ones should be started up, which have been decided either in the Field, or in the Cabinet, or at a Congress; though he must do it himself with Resolution and Courage, if he has Orders to do it.

His principal Occupation, is to study the Genius of the Prince he is sent to, and especially that of his Ministers or Favourites; if they be well vers'd or not in Politicks, that he may take all the Advantage he can of their Ignorance, or Want of Capacity; if haughty, that he may behave with a certain becoming and noble Pride, as not to be daunted by their Insolence; if they be perfidious enough to sacrifice the Honour and Glory of their Prince, and the Welfare of their Nation, to their private Interest, that he may not let slip so favourable an Opportunity of procuring some signal Advantages to his Country, by distributing, *a propos*, certain Sums among those voracious Ministers, or avoid, perhaps, a destructive War.

If any very great Difficulty arise, between him and the Ministers he treats with, the Determination thereof may be attended with some great Consequences, he ought never to trust to his own Judgment, but must have the Opinion of his Court, before he can be persuaded to agree that it should be decided.

He must have his Emissaries every where, and spare neither Care nor Money to be informed of all that passes, even in the Cabinet of the Prince if possible; that no Negotiations should be carried on with any other *Embassador* without his knowing it, not only as soon as it begins, but even as soon as such a Thing is propos'd, in order to apprise his Court of it, that they may send him Instructions how to behave in such a Conjunction.

Affability should be the Characteristick of an *Embassador*; for when People are convinced that every Body has a free Access to him, and that he receives all Sorts of Persons, according to their Rank and Condition, with a great deal of Complaisance, they are more ready to resort to his House, and he thereby receives, often, very useful Informations, which he must take Care to reward, in Proportion to the Advantage he thinks he can make of it, to encourage the Informer to continue in the same Disposition; for the Avarice or Parsimony of *Embassadors*, or other Ministers, is but too often the Cause, that they are as great Strangers to all that passes of any Consequence at the Court where they are *Embassadors* or Ministers, as if they were a thousand Leagues distant from it. For fear of Expences they keep themselves shut up in their Houses, and will even see no Body, unless he understands both to decline his Name, and trace his Genealogy; where as he should be accessible to every Body, since often in the most common Conversation, a publick Minister discovers or learns several Things which may prove beneficial to him; neither can he learn the Genius of a Nation by conversing only with Noblemen or Persons of Distinction, who knowing how to behave with a publick Minister, seldom use that Freedom with him, which is necessary to discover the real Genius of a Person; they even affect often to be as taciturn and circumspect as he is himself, and are always afraid of speaking too much, let them speak ever so little; unless it be in publick Feasts and Entertainments, which an *Embassador* should give often to the Nobility and Gentry, and that in a splendid Man-

ner; for it is then, when elevated with Wine and Mirth, that we appear such as we are, and set aside all Circumspection and Constraint, to speak freely what we think. Servants should also be entertain'd at the same Time, by those of the *Embassadors*, for as their Masters are not so circumspect in their own Houses, as they are Abroad; and that there are but few Servants, who have not that bad Quality of divulging Abroad, what they hear in their own House; those of an *Embassador* may learn several Things from them, which may be of Service to their Master.

It is a great Disadvantage for a publick Minister, not to understand the Language of the Country he is sent to, for unless he has always his Interpreter by him, which is almost impossible, and which even, is not always expedient (since a Minister is more upon his Guard, when he speaks before a third Person) he loses several very favourable Opportunities, which he would not was he to speak the Language of the Country; besides a Conversation carried on by an Interpreter is not so subject to Mistakes and Blunders, as one without it, for while the Interpreter is interpreting to one what the other said, the other has Time to reflect on what he must say next. Another Inconveniency is, that the Discourse of an *Embassador*, loses often a great deal of its Strength and Energy in the Mouth of an Interpreter, either because the Interpreter does not know how to explain certain Terms, or is afraid to do it. This must be said to the Honour of several *English* Noblemen, who have been sent in *Embassy* to foreign Courts, as the Earls of *Chesterfield*, *Harrington*, *Stair*, &c. that besides their great Capacity, and Dexterity in the Management of publick Affairs, they speak very politely several Languages; and therefore are capable, without an Interpreter, to treat at all the Courts of *Europe*; when as a *French* Minister, for Example, seldom understands any other Language but his own, and is forced to borrow another Tongue to express his Sentiments; especially here in *England*, for although they speak *French* at all the Courts of *Europe*, there are sometimes Ministers, or Secretaries of State, who, like the *French Embassadors*, understand but their own Mother Tongue; therefore if the *Embassador* does not speak that Tongue, he must have Recourse to an Interpreter; and who can answer for the Fidelity and Secrecy of that Interpreter, who is seldom actuated by any other Motives but those of Interest, and often born Subject of a Prince whose Interest is diametrically opposite to those the *Embassador* his Master is obliged to espouse and maintain? Besides it is a Sort of Honour done to a Nation, and a sure Mark of the Esteem a Foreigner has for her, to learn her Language.

Two other Qualities very essential to an *Embassador*, are Liberality and Magnificence; nor that I would advise a publick Minister to ruin himself, and his Posterity, to serve a Prince, who sometimes forgets the most signal Services (as did the brave Marquis *de Trevi*, *Embassador* in *England*, from the late King of *Sardinia*, under the Reign of Queen *ANNE* of glorious Memory, who after he had impair'd his Fortune, to do Honour to his Prince, during his Embassy, was forced at last to go serve the late King of *Poland*, to avoid being reduced to Beggary in his own Country) but he should spend all he receives from his Court, and not pocket half the Money, as is the Custom of several modern *Embassadors*; who live often with more Parsimony than a private Gentleman, or otherwise contract monstrous Debts, which they never pay, sometimes to the entire Ruin of Tradesmen, and to the Disgrace of their Character, and the Dishonour of the Prince they represent; who should punish with Severity those publick Oppressors, and oblige them besides, to pay those Debts they have contracted in foreign Parts; or pay them himself, if his Minister is not in a Condition to do it.

The Duties of an *Embassador* to his Prince, are very great, and consist chiefly in his Fidelity and Secrecy.

In his Fidelity, not only in executing punctually, and with Diligence, his Instructions, and the Orders he receives from his Court, but likewise, in being above any Temptation whatever, either of Advancement, Honour, or Interest; for it is the most infamous Perfidy, and a Crime abhorred and detested by all Nations, even by those who attempt to bribe an *Embassador*, for him to betray, not only the Prince his Master, but likewise a whole Nation (since the Interest, Glory, and Honour of both are inseparable) on any of those Considerations. His Fidelity must be even so scrupulous, as to refuse, or reject with Scorn, the least Gratification or Present from a foreign Prince, which are not authorised by the Custom of Nations, lest thereby, he should contract some Obligations contrary to his Honour; since a publick Minister, who behaves with that Circumspection and Integrity, is admir'd, respected, and even gains the Confidence of those who would have an Inclination to bribe him. As soon as he takes on him the Character of an *Embassador*, he makes the Interest of the Prince he represents, his own; and who but an ignorant and stupid Scoundrel, would be persuaded to betray his own Interests? And who would attempt to persuade him to it, but those who are conscious of his Ignorance, Stupidity, or Knavery? There have been, however, but too often such Ministers, who have carried on that infamous Commerce, of selling the Glory of their Prince, and the Welfare of a whole Nation, for ready Money, with such Craft, that all the while they were treating with the Purchasers, they lulled their Prince asleep in so dangerous a Security, that he could not be awaken'd; till when it had not been much Matter if he had slept for ever. For it is as great a Fault in a Prince, to repose himself entirely on the Fidelity and Integrity of his *Embassador* (unless he knows by a long Experience that he is not to be bribed) as it is to mistrust it too much; though he seldom runs any Risque on that Account, when he employs in his *Embassies*, Persons, who have their Capacity and Experience, illustrated with a noble Birth, and a polite and liberal Education; but what can he expect when he has the Weakness, or despicable Complaisance, to promote to that eminent Post, Scoundrels, who by a Caprice of Fortune, are sprang from a Dunghil, and have neither Merit, Birth, nor Education? Can he reasonably expect, that those who have no Principles of Honour or Honesty, can be actuated by any other Motives, but those of a sordid Interest; or that those who have never been true to any Body, will begin by being true to him, in a Post where there are so many Temptations to make them false?

The Fidelity of an *Embassador*, or other publick Minister, depends in a great Part on his Courage or Resolution; for there are Persons not to be gain'd by the most considerable Presents or greatest Promises, who for Want of Courage or Resolution, could be intimidated by Menaces and ill Usage, especially in *Turkey*; and there is as much Bravery and Greatness of Soul, in an *Embassador's* remaining faithful to his Prince amidst those Attacks, as there is in a General to behave gallantly in the Field.

A becoming and noble Complaisance, is a Quality essential to an *Embassador*, but too much Meekness is very dangerous, since an easy Temper is almost always imposed upon; the one gives a new Lustre to his Character, and the other eclipses often the Lustre it has already; for it is indispensably necessary to maintain, with a noble and polite Behaviour, the Majesty of the Prince represented by the *Embassador*. Not that I would have an *Embassador*, insolent and haughty, and claim greater Respect, or more Deference than is due to him; or make every Day new Attempts to extend the Grandeur of his Prince, farther than its just Limits; but I would have him so jealous of that Grandeur (which is one of the essential Duties of a publick Minister) as not to suffer by his too great Complaisance, the least Inroachments to be made on it; nor his Prince reviled, or mentioned in Terms unbecoming

becoming his Majesty, even by another Prince, without resenting it. He must even be sensible of the least Affront offered to himself as an *Embassador*, since they reflect on the Prince he represents; avoiding as much as possible putting himself in Compromise with other *Embassadors*, where he thinks he may be exposed to such Affronts; and when he meets with Affronts, he must insist on a Satisfaction, adequate to it, both from the Prince at whose Court he is, and from the Principals of the *Embassador* who has given the Affront; but he must not give Occasion by his bad Conduct to those Affronts, lest thereby he should expose his Court to some very great Inconveniencies; for the Imprudence of *Embassadors* has often caused very great Differences among Princes, and sometimes a bloody War. If the Affront be offered by the Prince, to whom he is sent *Embassador*, or by his Ministers, he must immediately apprise his own Court with it, and abstain from appearing in Publick, till he has received Orders on that Subject, either to ask for Satisfaction, or to quit that Court, which he must never do of his own Head.

An *Embassador* must never reduce his Prince to the Necessity of disapproving his Conduct; and if he does it without Cause (which sometimes happens) he may chance, thereby, to lose his Fortune, but not his Honour; for if he has followed religiously his Instructions, the Disgrace is to those who gave such Instructions, and not to the Person who was charged with them, and whose Duty it was to execute them punctually, tho' perhaps he knew at the same Time, that they were not very agreeable to Honour and Equity: For in not doing it, he had been guilty of a Crime; and in doing it, he cannot be reflected upon as having acted dishonourably, since he is but the Interpreter of his Prince, or of his Ministers.

An *Embassador* must also be very jealous of all the Privileges, Franchises, Immunities, &c. granted to him by the Law of Nations, which render all that belong to him sacred and respectable, and his House a Sanctuary, which cannot be violated with Impunity; he is obliged to shew himself sensible to the Insults offered to his Domesticks (when they are not the Aggressors) as if they were offered to himself; and no Prince is to suffer, under any Consideration whatever, that his Subjects should mal-treat an *Embassador*, or his Servants, or assault his House; otherwise he may very justly expect, that his will be used in the same Manner in another Country; and as none but the Rabble are guilty of such Disorders, they should never be suffered to escape unpunished. Neither are those Scurrilities vomited in certain Countries against publick Ministers, to be tolerated; for if the Person of the *Embassador* is despicable, his Character is honourable and claims our Respects. But an *Embassador* ought not to abuse his Privileges, Franchises, &c. nor make his House a Den of Thieves, Robbers, or Bankrupts, nor suffer his Servants, under that Pretence, to grow insolent, and contract Debts with a premeditated Design never to pay them.

The Negotiations of an *Embassador* and his Correspondences with his Court cannot be carried on with too much Secrecy; on which depends often the whole Success of a Negotiation; which when it takes Vent, is either thwarted or interrupted, or entirely disappointed by the Ministers of other Princes. Therefore an *Embassador* should always be very cautious whom he intrusts with his Affairs; or rather should never intrust any Body else with them (if possible) but himself and the Ministers he treats with. Not even his own Secretary, if he be not of an approved Fidelity; as for his Dispatches, he should always write those of any Consequence himself, and send them by a Courier of his own; without trusting them to the publick Post, or in the Packet of a Secretary of State. And as Sobriety can much contribute to that Secrecy, an *Embassador* cannot be too much upon his Guard, especially in those publick Feasts he is often invited to, lest his Secret should evaporate with the Fumes of the Wine.

It is a gross Error to imagine, that the Secrecy of an *Embassador*, is founded chiefly on Dissimulation and

Falshood; two Vices which are contrary even to the Notion we have of an honest Man, much more to the noble Character of an *Embassador*; for as no Body can oblige him to disclose his Secret, he has no Occasion to have Recourse to so scandalous Means to disguise it; and if he cannot speak as he thinks, he ought not to speak at all, nor advance a Falshood, because he is not permitted to say the Truth. Though several *Embassadors* and other publick Ministers, are of a contrary Opinion, and by often repeated Acts have contracted so ill an Habit of Dissembling, that they cannot help doing it, even in the most indifferent Things, which have not the least Relation to their Affairs as publick Ministers; so that it is a common Opinion, that we ought to understand the Words of an *Embassador*, in a Sense quite contrary to his real Meaning, *i. e.* that when he promises something, it is with the Design of never accomplishing his Promise; which in any Body else but a Statesman, would be a very scandalous Character. I don't speak here by Supposition; for, during the several political Transactions I have been engaged in, before I was reduced to the unhappy Condition of an Author, I have met with publick Ministers of that Stamp; and at the same Time pitied the Fate of the Princes who had the Imprudence to employ them; for as they are not to be depended upon, few (but those to whom they are not perfectly known) care to apply to them, and thereby several Opportunities are lost, which Ministers of a fairer Character, had rendered advantageous to the Prince their Master. If a publick Minister has not Prudence and Circumspection enough to keep his Secret without using of Dissimulation or Falshood, it is a Sign of the Weakness of his Understanding; and consequently he is not fit for an Employment of so great a Trust.

The Dissimulation I mean, here, though I seem to distinguish it from Falshood, is nothing else in Reality but Falshood, and Imposture; for there is another Kind of Dissimulation, which, far from being a Vice in an *Embassador*, is, on the contrary, a Quality essential to his Character; such as affecting to rely entirely on the Probity, Sincerity, and Candour of a Minister of State (whom he knows, at the same Time, to want all those Qualities) when he is conscious, that by acting otherwise, and discovering his just Suspicions, it would prove an Obstacle to the Precautions he designs to take, against the bad Consequences the Conduct of such a Minister towards him may be attended with; observing a profound Silence, on some Intrigues carried on to the Prejudice of the Prince his Master, till he has taken the necessary Measures to make them miscarry; when, was he to appear to be acquainted with them, he would lose some signal Advantages; pretending to repose the greatest Confidence, in Persons whom he knows perfectly well to be Emissaries appointed to entrap him; till he finds a favourable Opportunity to convince them effectually, that they have been mistaken in their Man, as well as in their Calculation; and never suspecting apparently those he has the most Reason to suspect. This Sort of Dissimulation is laudable in an *Embassador* or publick Minister, and it is almost impossible to carry on a Negotiation without it; and to it may be adapted this Proverb so common among Politicians, *Nescit regnare; qui nescit dissimulare.*

The Duties of an *Embassador* to his Country, consist in letting slip no Opportunities which can prove advantageous to it; asserting its Rights and Properties, insisting on a Satisfaction adequate to the Injury which may chance to be offered to it by other Nations; and protecting as much as it is in his Power the Subjects of his Prince, whom the Necessity of their Affairs, or Misfortunes oblige to take Sanctuary, or travel in the Country where he is an *Embassador*.

An *Embassador*, or other publick Minister, ought not to neglect any Thing, while in foreign Parts, which can be beneficial to his own Country, either by improving their Customs, or Manners, perfecting their Manufactures, or promoting their Commerce. Which to accomplish, as it is impossible he could be every

every where himself, he should always have in his Retinue, Persons of Knowledge, Understanding, and Experience, to frequent the different Places of publick Resort, where there is any Thing to be learned, every one according to his Capacity and Genius, some at Court or in the polite Assemblies, who should make their Remarks, on the Conduct of those who are the most esteemed for their good Manners, Politeness, genteel and noble Behaviour, &c. Some among the Learned, where they can make new Discoveries in the Arts and Sciences; viz. in Astronomy, Navigation, Geometry, Geography, &c. others in the Academies of Painting, Sculpture, Architecture, either Civil, Military or Naval, or in the Houses of the most famous Masters, in any of those liberal Arts. Others among Merchants, to discover, if possible, the new Improvements they have made in Commerce, Navigation, &c. others in Docks where Ships are constructed; and others in the Work-shops of the most famous Artificers, in all the Branches of the mechanical Arts. Thus an *Embassador* returns to his own Country like a diligent Bee to its Hive, loaded with all that he could gain in a foreign Climate the most proper to enrich his own; not like those indolent and useless ones, who falsely imagine that they have discharged their Duties, or acquitted themselves of their Employments, when they have been introduced to two or three Audiences of Ceremony, appeared every Day at Court to fill up a Vacancy, like a Cypher; treated, and been treated by the Ministers of State, with whom, perhaps, they have had two or three private Conferences during three or four Years of an *Embassy*, which has been of no other Service to one's Country, than to spend in show a considerable Sum, which had been better applied otherwise.

An *Embassador* ought also to use his best Endeavours to entertain a good Understanding and friendly Correspondence between his Nation and that he is sent to, and take off, if possible, all the national Prejudices which subsist between them, and are ordinarily very ill founded. If they are two trading People, to establish a Commerce, which could prove advantageous to both, deserves likewise the Attention of an *Embassador*; which cannot be done without promoting the Importation of foreign Commodities into his own Country, on Terms as easy and as advantageous to Foreigners, as he will have the Product of his own Country exported into foreign Parts, without affecting any Partiality on either Side.

But the Regard of an *Embassador* for the Welfare of his Country, must not be confined to its Inhabitants, but extend to all his Countrymen found among those People to whom he is sent in *Embassy*, by procuring to them all the Protection granted by the Law of Nations, and not suffering that they should be injured, or prejudiced, either in their Lives, Liberties, or Fortunes; since he is there, in Part, to appear in their Defence, and to have their Grievances redressed, as far as it is consistent with the Laws of the Country: For they are not to protect those who offend against those Laws; though they are authorized to implore the Clemency of the Prince for them, when they are condemned to some Punishment. Let it be said without Flattery, and to the immortal Honour of the *English Embassadors* in foreign Courts; that they will never suffer their Countrymen or Fellow-Subjects, in foreign Parts, to be either distressed, injured, or even punished for any Crime, which is not very heinous, if by any Means they can prevent it; but very few of the publick Ministers of other Nations, follow their laudable Example in this Particular; and among all others the *French* Ministers, signalize themselves by their Inhumanity for their Countrymen in foreign Parts; for they not only refuse them their Assistance, in any Perplexities, where there is nothing wanted but their Credit and Protection, but even that common Relief given to Beggars in the Streets, when reduced to an extreme Poverty. They perpetrate the one out of Barbarity, through Fear of disobliging a Ministry; and the other, through Parsimony or Avarice; though

there is always a considerable Sum, allowed by Princes to their *Embassadors*, and by the King of *France* in particular, to relieve their Subjects in foreign Parts. But this Barbarity of the *French* Ministers, so contrary to the natural Genius of the Nation; and to the true Principles of the antient *French* Nobility, is but of a modern Invention: For in former Reigns, as none but illustrious Persons were sent in an *Embassy*, their Palaces was a Place of Refuge for all their Countrymen when in Distress, where they were received with that Humanity, Compassion, and Tenderness, so well becoming a true Nobility, and where they used to find Protection, and Succours of all Kinds; whereas, at present, the barbarous Usage they often meet with from the Servants, by their Master's Orders, make them afraid of approaching the House, the Doors whereof are always shut to Distress and Indigency. It is true, that the Extraction and Education of those Ministers, is often as modern as their Manners; and their Principles as mean as their Figure. They even will not receive several of the Letters sent to them, lest they should be what they call, in their *Cant*, mendicant Letters, but those sent in a publick Manner; for then, if the Letter chance to be a mendicant one, they can refuse to see the Person who comes for an Answer; which they could not do so easily, if the Letter had been presented to them by any Body; or say, with a better Air, when Complaints are made to them of their Unkindness, that they have not received such a Letter. By such scandalous, and unpolitical Conduct, they have mis'd, to my certain Knowledge, receiving several Letters, which had been of some Service to them.

Father *Daniel* observes, that under the antient Kings of *France*, their *Embassies* consisted of a Body or Number of Persons, joined together in Commission, and who composed a kind of Council: Something like which is still retained at Treaties of Peace. Thus the *French Embassy* at *Nimeguen*, for the Peace, consisted of three Plenipotentiaries, that of *Utrecht* of two, &c.

At *Athens* the *Embassadors* from foreign Princes and States, mounted the Tribune, or Pulpit, of the publick Orators, and there opened their Commission, and acquainted the People with their Business and Errand: At *Rome*, they were introduced to the Senate, and delivered their Commission to them: Among us, they make their Address immediately and solely to the King.

Athens and *Sparta*, says M. *Tourreil*, when in all their Glory, were never so delighted, as to see and hear a Number of *Embassadors* in their Assemblies, suing for Protection, or Alliance of the one or the other State; it seemed to them the noblest Homage that could be paid them; and that State which received the most *Embassies*, was judged to have the Advantage over the other.

Cicero observes, that the Name of *Embassador* is sacred and inviolable, *non modo inter sociorum jura, sed etiam inter hostium tela incolume versatur*. We read that *David* made War against the *Ammonites* to revenge the Injuries done his *Embassadors*. *Alexander* put the Inhabitants of *Tyre* to the Sword, for having insulted his *Embassadors*; and the Youth of *Rome*, for affronting the *Embassadors* of *Vallona*, were delivered up into their Hands, to be punished at Discretion. The Princes of our Times are not so jealous of the Honour of their *Embassadors*, or rather of their own in the Person of their *Embassadors*. For they seldom take any Notice even of the greatest Affronts offered to them; which is the Cause why an *Embassador* is not so much respected at present, nor his Person so sacred, as it was in past Ages.

We read likewise of *Embassadresses*. *Madame* the *Mareschale de Guebriant*, my Grandmother of my Mother's Side, was the first, and perhaps the only Woman sent by any Court in *Europe*, in quality of *Embassadress*. Though the *Countess Coningsmark* was sent by that glorious Prince *Augustus II.* the late King of *Poland*, to *Charles XII.* the late King of *Sweden*; almost in the same Quality, but could not so much as gain an Audience from his *Swedish* Majesty.

Note,

Note, That the *Embassadors* of Kings should never attend at any publick Assemblies, Marriages, Interments, or other Solemnities, unless their Masters have some Interest therein; nor must they go in Mourning, or the like, on any Occasions of their own, by Reason they represent the Person of their Princes, and must conform and keep Pace with them.

Ministers of Princes at foreign Courts, are also often called *Envoys*, and *Residents*.

An *Envoy*, is a Person sent purposely to negotiate some particular Affair with a foreign Prince, or Republick.

Envoys, are either *Ordinary*, or *Extraordinary*; both Kinds are under the Protection of the Laws of Nations, and enjoy all the Privileges of *Embassadors*; only differing from them in this, that the same Ceremonies are not perform'd to them at their Audience.

The Ministers sent from the Court of *France*, *England*, &c. to *Genoa*, the Princes of *Germany*, and other petty Princes and States, do not go in Quality of *Embassadors*, but of *Envoys*. And those sent from one great Prince or State to another, as from the Kings of *France*, *England*, &c. to the Emperor, &c. when the Affair they go upon is not very solemn and important, have frequently no other Character but of *Envoys*.

Wicfort observes, that the Quality of *Envoy Extraordinary* is very modern, more modern than that of *Resident*; the Ministers invested therewith at first, took on them most of the Airs of *Embassadors*; but they have since been thought otherwise. For in the Year 1639, the Court of *France* made a Declaration, that the Ceremonies of conducting *Envoys Extraordinary* to their Audience, in the King and Queen's Coaches, with divers others, should no longer be practised to *Envoys*. *S. Justiniani* the first *Envoy Extraordinary* from *Venice* after this Regulation, offered to cover in speaking to the King, but it was refused him; and the King of *France* himself declared, that he did not expect his *Envoy Extraordinary* at the Court of *Vienna*, should be regarded any otherwise than an ordinary *Resident*. Since which Time, these two Kinds of Ministers have been treated alike.

RESIDENTS, are a Class of publick Ministers, inferior to *Embassadors* and *Envoys*; who manage the Affairs of a King in the Court of a Prince, or petty State; or the Affairs of a Prince, or petty State, in the Court of a King, or Prince. Thus the King of *England* has *Residents* in the Courts of Electors, and other Princes of *Germany* and *Italy*; at the Republicks of *Genoa* and *Lucca*; and they reciprocally have *Residents* at the Court of *Great Britain*. *Residents*, like all other publick Ministers, are under the Protection of the Law of Nations.

Note, That the Ceremonies practised at the Admission of *Embassadors*, or publick Ministers, to a Hearing, is called Audience; to which they are conducted by a Person of the Court they are sent to, called the Introdutor of *Embassadors*, which is a very eminent Post, commonly discharged by a Person of an extraordinary Merit. There are publick Au-

diences, and private Audiences; first Audiences and Audiences of Leave. The publick Audiences are always attended with a great deal of Ceremony, and the private ones with very little, or none at all. An *Embassador* is always conducted to his publick Audience, in the King or State's Coaches he is sent to. The last publick Audience *Lewis XIV.* the late King of *France* gave, was to *Mehemet Ri Sabec*, *Embassador* from the unfortunate *Sophy of Persia*, deposed, and sacrilegiously murder'd, by the Usurper *Mereweis*. The King receiv'd him in the great Hall at *Versailles*, setting on a Throne of Silver, rais'd from the Ground by several Steps of the same Metal; having at his Knees, the present King *Lewis XV.* then Dauphin of *France*, and environed with all his Court, each of both Sexes having endeavoured, that Day, to rival one another in Splendor and Magnificence; for one would have imagin'd that both *Mexico* and *Peru*, for Gold and Silver, and all the *Indies*, for Diamonds and other Jewels, had been exhausted, to adorn at that Time the Court of *France*. The King was dressed then in a Suit of plain Crimson Velvet; but the Buttons of the Coat and Waistcoat, were all brilliant Diamonds, valued at 700,000 Pounds Sterling; and the Dauphin, then an Infant, was all covered with Jewels.

In *England*, Audience is given to *Embassadors* in the Presence Chamber, to *Envoys* and *Residents* in a Gallery, Closet, or any Place where the King happens to be. At their Admission, the Way in all Courts, is to make three Bows, after which they cover and sit down; the King first covering and sitting down, and giving them the Sign to put on their Hats. When the King cares not to have them be covered and sit, he continues uncovered himself, and standing all the while, which is taken as a Slight, and an Affront. After the first Audience, it does not look well to be too hasty in demanding another. At *Constantinople*, Ministers usually have Audience of the Grand Vizir; in his Absence the Caimacan admits them to Audience; though they are sometimes introduced to that of the Grand Signor.

There is also another Kind of Ministers, improperly speaking, called *Consuls*, which are Officers established by Virtue of a Commission from Kings and other Princes, in the Ports and Factories of the *Levant*, on the Coasts of *Africa*, *Barbary*, *Spain*, and other Countries of any considerable Trade; to facilitate and dispatch Business, and protect the Merchants of the Nation. These Commissions are never granted to Persons under the Age of thirty Years. When the *Consulate* is vacant, the most antient of the Deputies of the Nation, are to discharge the Functions thereof, till the Vacancy be filled up by the King, Prince, or State.

The *Consuls* are to keep up a Correspondence with the Ministers of *England*, residing in the Courts whereon their *Consulates* depend. Their Business is to support the Commerce, and the Interest of the Nation; to dispose of the Sums given, and the Presents made to the Lords and Principals of Places, to obtain their Protection, and prevent the Insults of the Natives on the Merchants of the Nation.

EMBROIDERY.

EMBROIDERY, (from the *French Broderie*, of *broder* to *embroider*) is the Art of enriching of a Cloth or Stuff, by working divers Figures thereon, with Needle, and Thread of Gold and Silver; for that done with Silk, Flax, or the like, is not now called *Embroidery*; though antiently and properly, the Word denoted all Kinds of figuring and flourishing.

In fact, there is very little to be admired in an *Em-*

broidery done only with Thread of Gold, or Silver, but the Richness of the Work; the Beauty whereof consists, in my Sentiment, in its being diversified with Flowers, &c. of various Colours, which are the more beautiful, and strike more agreeably the Eye, the better they are shaded, and the more they approach the natural. For an *Embroidery* of this Kind, does not only consist in the different Sorts of Stitches, either

either Single, Cross, Chain-Stitches, employed therein, but likewise, in the Mixture of the different Colours, used to give the different Shades necessary to perfect the Work, and render it beautiful; in which there is as much Skill as in Painting, and is more difficult in the Execution; for it is a great deal easier to place the Colours with a Pencil, for Draperies, Carnations, Coloris, &c. than with a Needle, though we see Pieces of *Embroidery* in this Kind, which rival, if not excel the finest Pieces of Painting. I have seen at the Abby of the *Benedictine* Monks of St. Vincent, at *Le Mans*, in *France*, as beautiful for the Hair of the Head, the Coloris, Carnations, Draperies, &c. as any of the finest Pieces of Painting done by the *Titian*, though all done with Silk and a Needle.

These Pieces of *Embroidery*, are done on Silk, each Piece whereof is put in a Frame, as tight as possible, and the Design drawn upon it afterwards; though some draw it before the Silk is framed. After which the Artist sets himself to work, with the Piece of Painting, or Print he is to copy, before him; whereby he is to be directed in the Coloris, Carnations, Draperies, Shades, &c. beginning always, as in Painting, by the Heads, if there be any Figures, which must be done as well as all other Carnations, with the flattest Silk, and in very small Stitches.

The Gold or Silver Thread, used in these Sorts of Works, must be chosen the best, and tightest spun, otherwise it is subject to fray, which is a very great Disgrace to the Work.

Though *Tapestry* is seldom brought under the Article *Embroidery*, nevertheless, as I consider it as a Branch of that excellent Art (either practised with the Needle or on the Loom) and even one of the most beautiful, I'll place it here, since it cannot be brought under a more proper Head.

Tapestry with the Needle, is done upon Canvas, finer or coarser, according to the Fineness or Coarseness whereof the Work is intended to be; on which is drawn the Design of the Work with a Crayon; after which, the Artist traces slightly with a worsted Thread, if the Work is to be of Wool, all the Contours, then frames it and sets himself to work; which Work consists in single, double, and cross Stitches.

Tapestry on the Loom, being more curious, and done with more Expedition, I'll enter into a more particular Detail of its Manufacture; informing first, the Reader, that there are two Kinds of *Tapestry*, viz. *Tapestry* of the *high*, and the *low-warp*; though the Difference is rather in the Manner of working, than in the Work itself, which is in Effect the same in both; only the Loom, and consequently the *Warps*, are differently situated; those of the *low-warp* being placed flat, and parallel to the Horizon; and those on the contrary of the *high-warp*, erected perpendicularly.

We must endeavour to inform ourselves how both Kinds are work'd, and as *Tapestry* of the *high-warp* is the most esteem'd, we'll begin by examining the Loom it is made upon, which is placed perpendicularly, and consists of four principal Pieces; two long Planks or Cheeks of Wood, and two thick Rollers or Beams. The Planks are set upright, and the Beams across them, one a-top, and the other at Bottom, a Foot distance from the Ground. They have each their Trunnions, by which they are suspended on the Planks, and are turned with Bars. In each Roller is a Groove, from one End to the other, capable of containing a long round Piece of Wood, fastened therein with Hooks; its Use is to tie the Ends of the *Warp* to the *Warp*, which is a Kind of Worsted; a twisted woollen Thread is wound on the upper Roller; and the Work as fast as wove, is wound on the lower.

Within Side the Planks, which are seven or eight Foot high, fourteen or fifteen Inches broad, and three or four thick, are Holes pierced from Top to Bottom, in which are put thick Pieces of Iron, with Hooks at one End, serving to sustain the Coat-Stave: These Pieces of Iron have also Holes pierced, by putting a Pin in which, the Stave is drawn nearer or set farther off; and thus the Coats, or Threads, are

stretched or loosen'd at Pleasure. The Coat-Stave is about three Inches Diameter, and runs all the Length of the Loom: On this are fixed the Coats or Threads, which make the Threads of the *Warp* cross each other. It has much the same Effect here, as the Spring-Stave and Treddles have in the common Looms. The Coats are little Threads fasten'd to each Thread of the *Warp*, with a Kind of sliding Knot, which forms a Sort of March or Ring. They serve to keep the *Warp* open, for the Passage of Broaches wound with Silks, Woollen, or other Matters used in the Piece of *Tapestry*. Lastly, there are a Number of little Sticks, of different Lengths, but all about an Inch Diameter, which the Workman keeps by him in Baskets, to serve to make the Threads of the *Warp* cross each other, by passing them a-cross; and that the Threads thus crossed, may retain their proper Situation, a Pack-Thread is run along the Threads above the Stick.

The Loom thus form'd and mounted with its *Warp*, the first Thing the Workman does, is to draw on the Threads of this *Warp*, the principal Lines or Strokes of the Design, to be represented on the Piece of *Tapestry*, which is done by applying Cartoons, made from the Painting he intends to copy, to the Side that is to be the wrong Side of the Piece, and then with a Black-Lead Pencil, following and tracing out the Contours thereof, on the Threads of the Right Side; so that the Strokes appear equally both before and behind. As to the original Design the Work is to be finished by, it is hung up behind the Workman, and wound on a long Staff, from which a Piece is unrolled from Time to Time, as the Work proceeds.

Besides the Loom here describ'd, are requir'd a Broach, a Reed, and an Iron Needle, for working the Silk, or Wool of the Hoof within the Threads of the *Warp*. The Broach is of hard Wood, 7 or 8 Inches long, and two-thirds of an Inch thick, ending in a Point, with a little Handle, and serves as a Shuttle, the Silk, Woollen, Gold or Silver to be us'd in the Work, being wound on it. The Reed or Comb, is also of Wood, eight or nine Inches long, and an Inch thick at the Back; whence it usually grows less and less, to the Extremity of the Teeth, which are more or less apart, according to the great or less Degree of Fineness of the intended Work. Lastly, the Needle is in Form of a common Needle, only bigger and longer. Its Use is to press close the Wool and Silks, when there is any Line or Colour that does not fit well.

All Things being prepar'd for the Work, and the Workman ready to begin, he places himself on the wrong Side the Piece, with his Back towards the Design; so that he works as it were blind-fold, seeing nothing of what he does, and being obliged to quit his Post, and go to the other Side the Loom, whenever he will view and examine the Piece, to correct it with his pressing Needle. To put any Silk, Woollen, &c. in the *Warp*, he first turns and looks at his Design; then taking a Broach full of the proper Colour, he places it among the Threads of the *Warp*, which he brings across each other with his Fingers, by Means of the Coats or Threads fastened to the Staff, which he repeats every Time he changes his Colours. The Silk or Wool being placed, he beats it with his Reed or Comb, and when he has thus wrought in several Rows over each other, he goes to see the Effect they have; in order to reform the Contours with his Needle, if there be Occasion. As the Work advances, they roll it up on the lower Beam, and unroll as much *Warp* from the upper Beam, as suffices them to continue the Piece; the like they do of the Design behind them. When the Pieces are wide, several Workmen may be employ'd at once.

Note, That the *high-warp Tapestry*, goes on much slower than the *low-warp*, and takes almost double the Time and Trouble. And that all the Difference the Eye can observe between the two Kinds, consists in this, that in the *low-warp* there is a red Fillet, about one twelfth of an Inch broad, running

ning on each Side from Top to Bottom, which is wanting in the *high-warp*.

The Loom, or Frame, on which the *low-warp Tapestry* is worked, is much like that of the Weavers: The principal Parts thereof are two strong Pieces of Wood, forming the Sides of the Loom, and bearing a Beam or Roller at each End: They are sustained at Bottom with other strong Pieces of Wood, in manner of Tressels; and to keep them the firmer, are likewise fastened to the Floor with a Kind of Buttresses, which prevent any shaking, tho' there are sometimes four or five Workmen leaning on the Fore-Beam at once. The Rollers have each their Trunnions, by which they are sustained: They are turned by large Iron Pins, three Foot long. Along each Beam runs a Groove, wherein is placed the *Wich*, a Piece of Wood of about two Inches Diameter, and almost the Length of the Roller: This Piece fills the Groove entirely, and is fastened therein from Space to Space by wooden Pins; to the two *Wiches* are fastened the two Extremities of the *Warp*, which is wound on the further Roller; and the Work, as it advances, on the nearer. Across the two Sides, almost in the middle of the Loom, passes a wooden Bar, which sustains little Pieces of Wood, not unlike the Beam of a Ballance: To these Pieces are fastened Strings, which bear certain Spring-Staves, wherewith the Workman, by Means of two Treddles under the Loom whereon he sets his Feet, gives a Motion to the Coats, and makes the Threads of the *Warp* rise and fall alternately. Each Loom has more or fewer of these Spring-Staves, and each Staff more or fewer Coats, as the *Tapestry* consists of more or fewer Threads.

The Design or Painting the Workman is to follow, is placed underneath the *Warp*; where it is sustained, from Space to Space, with Strings, by which the Design is brought nearer the *Warp*.

The Loom being mounted, there are two Instruments us'd in working it, *viz.* the Reed and the Flute. The Flute does the Office of a Weaver's Shuttle: It is made of a hard polished Wood, three or four Lines thick at the Ends, and somewhat more in the middle, and three or four Inches long. On it are wound the Silks, and other Matters to be used as the Woof of the *Tapestry*. The Comb, or Reed, is of Wood or Ivory; it has usually Teeth on both Sides; it is about an Inch thick in the middle, but diminishes each Way to the Extremity of the Teeth: It serves to beat the Threads of the Woof close to each other, as fast as the Workman has passed and placed them with his Flute among the Threads of the *Warp*.

The Workman is seated on a Bench before the Loom, with his Breast against the Beam, only a Cushion or Pillow between them; and in this Posture separating with his Fingers the Threads of the *Warp*, that he may see the Design underneath; and taking a Flute, mounted with the proper Colour, he passes it among the Threads, after he has raised or lower'd them, by Means of the Needles moving the Spring-Staves and Coats. Lastly, to press and close the Threads of the Silk or Yarn, &c. thus placed, he strikes each Course (*i. e.* what the Flute leaves in its passing and coming back again) with the Reed.

Note, That the *low-warp* has this in common with the *high-warp*, that all is wrought on the wrong Side; so that the Workman cannot see the right Side of his *Tapestry* till the Piece be finished and taken off his Loom.

Note, also, That the usual Widths of *Tapestries*, are from two Ells to three Ells and a half, *Paris* Measure.

The Invention of *Tapestry* seems to have come from the *Levant*; and what makes this the more probable is, that formerly the Workmen concerned herein were called, at least in *France*, *Sarazins*, or *Sarazinois*. It is supposed that the *English* and *Flemish*, who were the first that excelled therein, might bring the Art with them from some of the Croisades, or Expeditions against the *Sarazens*. Be this as it will, it is certain those two Nations, particularly the *English*, were the first who set on foot this noble and rich Manufacture in *Europe*; now one of the finest Ornaments of Palaces, Basiliks, Churches, &c. Hence if they be not allow'd the Inventors, they have, at least, the Glory of being the Restorers of so curious and admirable an Art, as gives a Kind of Life to Wools and Silks, in no Respect inferior to the Painting of the best Masters.

It was late before the *French* applied themselves to *Tapestry*: The first Establishment of that Kind was under *Henry IV.* in the Year 1607, in the *Fauxbourg St. Marcel*; but this fell at the Death of that Prince. Under *Lewis XIV.* the Manufacture was retrieved by the Care and Address of the great M. *Colbert*, at the *Gobelins*, (at present called the *Hotel Royal of the Gobelins*, in Consequence of an Edict of *Lewis XIV.*) where during his Superintendency, and that of his Successor M. *de Louvois*, the making of *Tapestry* has been practised to a Degree of Perfection, which surpasses what was antiently done by the *Flemish*. The Battles of *Alexander*, the four Seasons, the four Elements, the King's Palaces, and a Series of the principal Actions of the Life of *Lewis XIV.* from the Time of his Marriage to the first Conquest of *Franche Comté*, done from the Designs of M. *le Brun*, Director of the Manufactory of the *Gobelins*, are Master Pieces in their Kind. The Manufacture of the *Tapestry* of the *Gobelins* subsists yet, with the same Glory, and produces by Intervals some very extraordinary Pieces, not at all inferior to what was done under the Direction of *le Brun*. The late Czar of *Muscovy*, *Peter the Great*, was presented while at *Paris*, in 1718, by the present King, *Lewis XV.* with a Set of Hangings, made at the *Gobelins*, esteem'd at 20 or 25000*l.* Sterling; for which, in an Excess of Liberality natural to him, he order'd six *Louis d'Ors* to the Workmen; who, not being used to those Northern Liberalities, had refused the Present, if his Royal Highness the Duke of *Orleans*, then Regent of *France*, had not commanded them to accept it, promising them, at the same Time, to reward them himself; which accordingly he did to their Satisfaction.

Note, That there are diverse Kinds of *Embroidery* in Gold or Silver; as *Embroidery on both Sides*, that which appears on both Sides; only practicable on thin slight Stuffs, as Taffetas, Gawse, Muslins, &c. *Embroidery on the Stamp*, where the Figures are very high and prominent, being supported on Wool, Cotton, Hair, &c. *Low Embroidery*, where the Figures are low, and without any Enrichment between them.

Note, also, That the Invention of *Embroidery* is attributed to the *Phrygians*, whence the *Latins* call *Embroiderers*, *Phrygiones*.

ENAMELLING.

ENAMELLING, is the Art, or Act of applying *Enamels* of various Colours, on Metals, &c.

Enamelling is practised two different Ways, either in *Painting* or by the *Lamp*.

Painting in Enamel, is a Method of painting with metalline

metalline Colours, ground, reduced to Powder, and used like other Colours with a Pencil; then fused, baked again, and vitrified by Force of Fire.

Enamelling by the Lamp, is laying *Enamel* on Metal, most commonly Gold, by the Flame of a *Lamp*; wherein, in lieu of Oil, is put Horses Grease, by some called *Caballin Oil*.

Before we can pretend to practise these two Manners of *Enamelling* we must inform ourselves what *Enamel* is; how it is composed, how many different Sorts of *Enamels*; which is that for Painting, and which for *Enamelling by the Lamp*.

ENAMEL, is a kind of metalline Colour, by the *Latins* called *Encaustum*; the Basis thereof is the finest Chrystal Glass, made of the best Kaly from *Alicant*, and Sand vitrified together: To which are added Tin and Lead in equal Quantities calcined, by a reverbaratory Fire. The different Colours of the *Enamel* are given with metallick or mineral Matters; as with *Æs Ustum*, for green, *Crocus Martis*, for yellow, &c.

There are three Kinds of *Enamels*. The first intended for counterfeiting and imitating of precious Stones; and which is either brought from *Venice* and *Holland*, or prepared by the Artists themselves, and which only differs from the other *Enamels* (since the Composition is the same) in the Colour and Transparency. The second is for Painting, of which there is of all Sorts of Colours, viz. White, Ruddy-Brown, Black, Yellow, Vermillion-Red, Lake-Red, Blue and Amber-Colour: Which seven or eight Colours serve for the Composition of all the rest; by a discreet Mixture or Combination thereof. Thus blue and yellow make green; blue and red, violet, &c.

These different Sorts of *Enamels* for Painting are prepared in the following Manner: The White is no otherwise different from the common Sort used by *Enamellers*, then that it must be prepared by grinding and cleansing it with *Aqua Fortis*: After which it must be well washed in fair Water, and then pounded afresh in a Flint Mortar. The Ruddy-Brown is made with Fæces of Vitriol and Salt-petre, or with Iron Rust, well ground on an Agat, with Oil of Aspic. The Black is made of Perigueux well calcined, and ground with Oil of Aspic; to which is added an equal Quantity of the Goldsmiths, or *Enamellers* Black. The Yellow is the same with the Goldsmith's Yellow. The Vermillion-Red is made with Vitriol calcined (at a moderate Fire, for the Space of half an Hour) between two Crucibles luted together. The Lake-Red, is composed of fine Gold dissolved in *Aqua Regia*. The Dissolution being compleated, it is put in a Cucurbit with Spring Water and Mercury, at a Sand Heat, for 24 Hours, the Powder remaining at the Bottom of the Cucurbit, when the Water is poured off, is ground up with double its Weight of Flour of Sulphur, and put in a Crucible over a gentle Fire. And when the Sulphur, which takes Fire, is exhaled, the red Powder remaining is ground up with *Rocaille*. The Blue is made of *Lapis Lazuli*, well purified and prepared with Spirit of Wine, and exposed in a Bottle five or six Days to the Rays of the Sun, but it is made much better with *Ultramarine*. The Amber-Colour is made of Copperas calcined.

The third kind of *Enamels* is that used by the *Enamellers*, Jewellers and Goldsmiths, on Gold, Silver, and other Metals; chiefly brought (as we have observed already) from *Venice*, and *Holland*, in little thin Cakes of different Sizes, usually four Inches in Diameter and half an Inch thick. Every Cake has the Maker's Mark struck on it with a Punccheon. The most usual Marks are the Name Jesus, a Syren, Monkey, Sun, &c. Those brought from *Venice* are chiefly white, Slate-Colour, Sky-Blue, Carnation, Yellow, Green, and a deep Blue, called false Lapis. These seven are the Principles of all the others, which arise out of the Mixture of these: And the White, in particular, is, as it were, the Basis of all the other six principal Colours; for by adding Azure to it, it becomes a Slate-Colour; by adding Copper, and Cyprus Vitriol, it makes a Sky-Blue; by *Perigueux*, a Flesh-Colour;

by Iron-Dust a Yellow, by Copper-Filings a Green, &c.

Having thus found, and prepared all our different Kinds of *Enamels*, we'll set ourselves to work; beginning by the most curious Operation, which is *painting in Enamel*: Which though a Branch of the Art of *Painting* in general, is nevertheless so different from all the other Branches of that divine Art, that I judge it more proper to bring it under this Title of *Enamelling*.

There are two Ways of *painting in Enamel*; the one with clear and transparent, and the other with thick and opaque Colours. Of the *transparent Enamels*, the hardest are the best; though there is a Difference even among these; some losing their Colour in the Fire, and the others retaining it. As to the Reds they are only red by Accident, being only yellow when made and applied on the Gold; and becoming red in the Furnace. The best *transparent Reds* are those made of calcined Copper Iron-Rust, Orpiment and calcined Gold, melted with due Proportion of Sand and Salt of Glass. These *transparent Enamels*, before they are used, must be ground up only with Water.

Though *painting in Enamel* be done on Plates of Metals, it must be observed however, that all Metals will not equally admit of both Kinds of *Enamels*, viz. the transparent and opaque. Copper, for Instance, which bears all the opaque Colours, will not bear the transparent Ones; but to employ these latter (viz. the transparent) we must first cover the Copper-plate with a Lay, or Couch of black *Enamel*, over which we lay a Silver Leaf, and on this apply the other suitable Colours, that is, the Colours or *Enamels*, proper for Silver, which are Purple, Azure, and Aqua Marina; since it does not allow of all Kinds of Colours. Neither are Copper, and Silver, very proper Metals to paint in *Enamel*, in Perfection; for Copper, besides that it emits a Fume which tarnishes the Colours, is apt to scale and crackle; and Silver turns the Whites yellow. Therefore Gold, which receives all the Kinds of *Enamels* and Colours, both opaque and transparent, perfectly well, is the best Metal for this Operation. Even of this none but the finest must be used; for the transparent Colours be laid on a base Gold, grow dim and livid; there being a Kind of Smoak that settles on it, not unlike black Lead.

To prepare a Gold Plate or any other Metals, for *painting in Enamel*, it must be made a little hollow on one Side, and raised on the other, either in a circular or oval Manner, to prevent the Gold's fretting by the Fire, and making the Colours crack and fly; nor must it be made too thick. Some border or edge the Plate with a Rim to keep the Colours asunder, though we have seen Pieces laid on contiguous, and without any Partition; which is very difficult to practise, by reason the transparent Colours, in melting, are apt to run into each other; especially in the smaller Works.

The Plate being hammer'd very evenly throughout, a white *Enamel* must be apply'd on both Sides, tho' the Design be only to paint on one; which is done to prevent any swelling and warping by the Fire; for otherwise in large Pieces, and especially if the Colours be laid on any thing unequally, they are apt to rise up in Puffs and Blisters: Now this first Lay, which is white, remaining smooth and uniform, serves as a Ground for all the other Colours.

On this Gold Plate, thus *enamelled* in white, must be chalked the Draught or Design to be painted; and afterwards the whole, accurately drawn out in a ruddy brown. The Draught, or Out-Lines, thus finished, we'll set the Piece to the Fire; and paint it afterwards with the other Colours proper for our Design: The white Ground, on which we paint, serving all the Colours for white; and taking Care to spare the Ground from first to last, in the Places where the Lignes are to be, after the same Manner as in Miniature: Tho' we must have another White to lay over the other Colours, when there is Occasion to raise them: We must lay the Colours on with the Tip or Point of the Pencil as in Miniature; with this only Difference, that we

we use Oil of Aspick to dilute them, instead of Gum Water.

We have the same Liberty in this Sort of Painting, as the Painters in Oil, to touch the Piece as often as we please; to set it each Time to a reverberatory Fire, as they do theirs to any other Place to dry, and to take it away again as soon as we perceive the *Enamel* has got its full Polish. This reverberatory Fire, is made in a little Furnace, wherein there is Fire both a-top and all round; only a void Place in the Middle, where the Piece is to be put for the *Enamels* to neal.

The Method of Painting with opake and thick *Enamels*, is far preferable to that of Painting with transparent ones; since it is in opake Colours, we have all our fine modern Pieces of *Enamels*; particularly those curious ones in Gold, representing Portraits to as much Perfection, as the best Painting in Oil, and even some History Pieces; with this great Advantage, that their Beauty and Lustre never decays, being equally secure from Injuries of Time and Weather. We are indebted for it to the *French*, nothing of the Kind having been attempted, before the Year 1630; when *Jean Toutin*, a Goldsmith of *Chateaudan*, and a great Master in the common Way of Painting with transparent *Enamel*, first apply'd himself to find a Way to use thick Colours of different *Teints*, which should melt with Fire, yet retain their Lustre, Purity, &c. He succeeded in his Attempt, and having got the Secret, communicated it to his Fellow Artists, who in their Turn contributed to the bringing it to Perfection: The first who distinguished himself, was *Dubié*, a Goldsmith, who wrought in the Galleries of the *Louvre*. After him came *Morliere*, a Native of *Orleans*, who applied himself chiefly to the Painting on Rings and Watch Cases. His Disciple *Robert Vanquer* of *Blois*, exceeded them all, both in his Designs and Colours. After him *Pierre Chartier* of *Blois*, took himself to the Painting of Flowers, wherein he succeeded to Admiration.

By this Time, the *English* were fallen into the Way, who seem to have been the first that applied it with Success to the Painting of Portraits, which was now become mightily in Vogue, in lieu of those in Miniature. *M. Felebien* observes, that the first and most finished Portraits, and those in the finest Colours, were brought into *France*, by *Petitot* and *Rordier* from *England*; this occasioned *Louis Hance* and *Louis du Guernier*, two good Painters in Miniature, to attempt the like; in which the latter succeeded beyond every Body. He likewise invented several new *Teints* for the Carnations, and had he lived, had probably merited the Glory of carrying the Art to its last Perfection.

The Art of Painting with transparent *Enamel*, tho' not so perfect nor so beautiful, is much more ancient, and appears to have been first practised on earthen, or Potters-Ware. As early as the Age of *Porfenna* King of *Tuscany*, we hear of beautiful Vases made in his Territories, enamelled with various Figures; though far short of those afterwards made at *Firenza*, and *Castel Durante*, in the Dutchy of *Urbino*, in the Time of *Raphael*, and *Michael Angelo*. There are still some of those Vases extant in the Cabinets of Antiquaries; in all which, the Design or Drawing of the Figures, is much better than the Colouring. For they were at that Time only acquainted with two Colours, viz. black and white, either for earthen or metal Work. In the Time of *Francis I.* King of *France*, the Art was retrieved in our Country, particularly at *Limoges*, where there were produced Abundance of very valuable Pieces, in the Manner of the Antients, that are well perform'd as to the Draughts, and the clear obscure, chiefly in two Colours.

The other Manner of *Enamelling*, is that by the Lamp; which to perform, we must provide a Lamp of Copper or Tin, consisting of two Parts, viz. the Box and the Lamp; in the Lamp, which is a Kind of flat Oval, out of which rises the Wick, is put the Oil; and the Box serves to receive it, when by the Ebulli-

tion occasioned by the intense Heat, it is scattered abroad. The Oil us'd in this Lamp is Horse's Grease, otherwise called *Caballin Oil*.

This Lamp, or several more, when there are several Artists at Work (for each Artist must have his Lamp) are placed on a Table of a proper Height, under which, about the Middle of its Height, is a double Bellows, like those of an Organ, which one of the Workmen raises and falls with his Foot, to increase and quicken the Flame of the Lamp, which is by such Means excited to a Degree of Vehemence almost incredible. The Wind of the Bellows is conveyed to the Lamps, through a Tube of Glass placed before each Lamp, and adapted to Grooves cut along the Thickness of the Table, and covered with Parchment. And that the *Enamellers* may not be incommoded by the Heat of the Lamp, each Tube is covered, at about six Inches distance, with a Piece of Tin, called a Fan, fix'd in a Hole of the Table. But in Works that do not take up much Time, *Enamellers* content themselves with a Glass Blow-Pipe, to heighten the Flame of the Lamp.

When the *Enameller* goes to work, he seats himself before his Lamp, with his Foot on the Treddle; and holding in his left Hand the Piece of Work he has to enamel, or the Brass or Iron Wire his Figure is to be form'd with; with his right Hand he draws out the Thread from the *Enamel* held to the Lamp.

Though this Kind of *Enamelling* is also done with *Dutch* or *Venetian Enamels*, they are seldom used pure; for the common Way is to melt them in an Iron Ladle, with an equal Quantity of Glass or Crystal, and when the two Matters are in perfect Fusion, they draw it out into Threads of different Sizes, as Occasion requires, by taking a Quantity by two Pipe-Stopples, held in both Hands, and removing them asunder as far as the Arms will reach. If the Thread is to be longer than the Workman can stretch, a second Person takes one of the Ends, and continues to draw it out while the first continues to keep the *Enamel* to the Flame. All the Threads drawn after this Manner are round, so that if the Nature of the Work require them to be flat, they are afterwards drawn through a Pair of Pinchers while yet hot. They have another Iron Instrument in Manner of Pliers, to draw out the *Enamel* by the Lamp, when it is to be work'd or disposed in Figures, or otherwise. Lastly, they have Glass Tubes of various Sizes, serving to blow the *Enamel* into various Figures, and preserve the necessary Vacancies therein, as also to spare the Stuff, and form the Contours.

The Cake of *Enamel*, by its being applied to the Flame of the Lamp, may be drawn out into Threads so inconceivably fine, as to make artificial Plumes of Feathers. In this Operation two Workmen are employed, the first holds one End of the Cake of *Enamel* over the Flame of the Lamp, and when the Heat has soften'd it, a second Operator applies a Glass Hook to the Metal thus in Fusion, and withdrawing the Hook again, it brings with it a Thread of *Enamel* which still adheres to the Mass. Then fitting his Hook on the Circumference of a Wheel, about two Feet and a half in Diameter, he turns the Wheel as fast as he pleases; when drawing out the Threads, winds it on its Rim, till after a certain Number of Revolutions, it is covered with a Skane of *enamel Thread*.

The Mass in Fusion over the Lamp diminishes insensibly, being wound out, as it were, like a Pelatoon or Clue upon the Wheel; and the Parts, as they recede from the Flame, cooling, become more coherent with those next to them, and this by Degrees: The Parts nearest the Fire are always the least coherent, and of Consequence must give Way to the Effort the rest make to draw them towards the Wheel. The Circumference of these Threads is usually a flat Oval, being three or four Times as broad as thick. Some of them scarce seem bigger than the Thread of a Silk-Worm, and are flexible to a Miracle. If the two Ends of such Threads be knotted together, they may be drawn and bent, till the Aperture or Space, in the

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There are two Ways of *painting in Enamel*; the one with clear and transparent, and the other with thick and opake Colours. Of the *transparent Enamels*, the hardest these; some losing their Colour in the Fire, and the others retaining it. As to the Reds they are only red by Accident, being only yeilow when made and applied on the Gold; and becoming red in the Furnace. The best *transparent Reds* are those made of calcined Copper Iron-Rust, Orpiment and calcined Gold, melted with due Proportion of Sand and Salt of Glass. These *transparent Enamels*, before they are used, must be ground up only with Water.

Though *painting in Enamel* be done on Plates of Metals, it must be observed however, that all Metals will not equally admit of both Kinds of *Enamels*, viz. the transparent and opake. Copper, for Instance, which bears all the opake Colours, will not bear the transparent Ones; but to employ these latter (viz. the transparent) we must first cover the Copper-plate with a Lay, or Couch of black *Enamel*, over which we lay a Silver Leaf, and on this apply the other suitable Colours, that is, the Colours or *Enamels*, proper for Silver, which are Purple, Azure, and Aqua Marina; since it does not allow of all Kinds of Colours. Neither are Copper, and Silver, very proper Metals to paint in *Enamel*, in Perfection; for Copper, besides that it emits a Fume which tarnishes the Colours, is apt to scale and crackle; and Silver turns the Whites yellow. Therefore Gold, which receives all the Kinds of *Enamels* and Colours, both opake and transparent, perfectly well, is the best Metal for this Operation. Even of this none but the finest must be used; for the transparent Colours be laid on a base Gold, grow dim and livid; there being a Kind of Smoak that settles on it, not unlike black Lead.

To prepare a Gold Plate or any other Metals, for *painting in Enamel*, it must be made a little hollow on one Side, and raised on the other, either in a circular or oval Manner, to prevent the Gold's fretting by the Fire, and making the Colours crack and fly; nor must it be made too thick. Some border or edge the Plate with a Rim to keep the Colours asunder, though we have seen Pieces laid on contiguous, and without any Partition; which is very difficult to practise, by reason the transparent Colours, in melting, are apt to run into each other; especially in the smaller Works.

The Plate being hammer'd very evenly throughout, a white *Enamel* must be apply'd on both Sides, tho' the Design be only to paint on one; which is done to prevent any swelling and warping by the Fire; for otherwise in large Pieces, and especially if the Colours be laid on any thing unequally, they are apt to rise up in Puffs and Blisters: Now this first Lay, which is white, remaining smooth and uniform, serves as a Ground for all the other Colours.

On this Gold Plate, thus *enamelled* in white, must be chalked the Draught or Design to be painted; and afterwards the whole, accurately drawn out in a ruddy brown. The Draught, or Out-Lines, thus finished, we'll set the Piece to the Fire; and paint it afterwards with the other Colours proper for our Design: The white Ground, on which we paint, serving all the Colours for white; and taking Care to spare the Ground from first to last, in the Places where the Lights are to be, after the same Manner as in Miniature: Tho' we must have another White to lay over the other Colours, when there is Occasion to raise them: We must lay the Colours on with the Tip or Point of the Pencil as in Miniature; with this only Difference, that we

we use Oil of Aspick to dilute them, instead of Gum Water.

We have the same Liberty in this Sort of Painting, as the Painters in Oil, to touch the Piece as often as we please; to set it each Time to a reverberatory Fire, as they do theirs to any other Place to dry, and to take it away again as soon as we perceive the *Enamel* has got its full Polish. This reverberatory Fire, is made in a little Furnace, wherein there is Fire both at top and all round; only a void Place in the Middle, where the Piece is to be put for the *Enamels* to neal.

The Method of Painting with opaque and thick *Enamels*, is far preferable to that of Painting with transparent ones; since it is in opaque Colours, we have all our fine modern Pieces of *Enamels*; particularly those curious ones in Gold, representing Portraits to as much Perfection, as the best Painting in Oil, and even some History Pieces; with this great Advantage, that their Beauty and Lustre never decays, being equally secure from Injuries of Time and Weather. We are indebted for it to the *French*, nothing of the Kind having been attempted, before the Year 1630; when *Jean Toutin*, a Goldsmith of *Chateaudan*, and a great Master in the common Way of Painting with transparent *Enamel*, first apply'd himself to find a Way to use thick Colours of different *Teints*, which should melt with Fire, yet retain their Lustre, Purity, &c. He succeeded in his Attempt, and having got the Secret, communicated it to his Fellow Artists, who in their Turn contributed to the bringing it to Perfection: The first who distinguished himself, was *Dubie*, a Goldsmith, who wrought in the Galleries of the *Louvre*. After him came *Morliere*, a Native of *Orleans*, who applied himself chiefly to the Painting on Rings and Watch Cases. His Disciple *Robert Vauquer* of *Blois*, exceeded them all, both in his Designs and Colours. After him *Pierre Chartier* of *Blois*, took himself to the Painting of Flowers, wherein he succeeded to Admiration.

By this Time, the *English* were fallen into the Way, who seem to have been the first that applied it with Success to the Painting of Portraits, which was now become mightily in Vogue, in lieu of those in Miniature. *M. Felebien* observes, that the first and most finished Portraits, and those in the finest Colours, were brought into *France*, by *Petitot* and *Bordier* from *England*; this occasioned *Louis Hance* and *Louis du Guernier*, two good Painters in Miniature, to attempt the like; in which the latter succeeded beyond every Body. He likewise invented several new *Teints* for the Carnations, and had he lived, had probably merited the Glory of carrying the Art to its last Perfection.

The Art of Painting with transparent *Enamel*, tho' not so perfect nor so beautiful, is much more ancient, and appears to have been first practised on earthen, or Potters-Ware. As early as the Age of *Porfenna* King of *Tuscany*, we hear of beautiful Vases made in his Territories, enamelled with various Figures; though far short of those afterwards made at *Firenza*, and *Castel Durante*, in the Dutchy of *Urbino*, in the Time of *Raphael*, and *Michael Angelo*. There are still some of those Vases extant in the Cabinets of Antiquaries; in all which, the Design or Drawing of the Figures, is much better than the Colouring. For they were at that Time only acquainted with two Colours, viz. black and white, either for earthen or metal Work. In the Time of *Francis I.* King of *France*, the Art was retrieved in our Country, particularly at *Limoges*, where there were produced Abundance of very valuable Pieces, in the Manner of the Antients, that are well perform'd as to the Draughts, and the clear obscure, chiefly in two Colours.

The other Manner of *Enamelling*, is that by the Lamp; which to perform, we must provide a Lamp of Copper or Tin, consisting of two Parts, viz. the Box and the Lamp; in the Lamp, which is a Kind of flat Oval, out of which rises the Wick, is put the Oil; and the Box serves to receive it, when by the Ebulli-

tion occasioned by the intense Heat, it is scattered abroad. The Oil us'd in this Lamp is Horse's Grease, otherwise called *Caballin Oil*.

This Lamp, or several more, when there are several Artists at Work (for each Artist must have his Lamp) are placed on a Table of a proper Height, under which, about the Middle of its Height, is a double Bellows; like those of an Organ, which one of the Workmen raises and falls with his Foot, to increase and quicken the Flame of the Lamp, which is by such Means excited to a Degree of Vehemence almost incredible. The Wind of the Bellows is conveyed to the Lamps, through a Tube of Glass placed before each Lamp, and adapted to Grooves cut along the Thickness of the Table, and covered with Parchment. And that the *Enamellers* may not be incommoded by the Heat of the Lamp, each Tube is covered, at about six Inches distance, with a Piece of Tin, called a Fan, fix'd in a Hole of the Table. But in Works that do not take up much Time, *Enamellers* content themselves with a Glass Blow-Pipe, to heighten the Flame of the Lamp.

When the *Enameller* goes to work, he seats himself before his Lamp, with his Foot on the Treadle; and holding in his left Hand the Piece of Work he has to enamel, or the Brass or Iron Wire his Figure is to be form'd with; with his right Hand he draws out the Thread from the *Enamel* held to the Lamp.

Though this Kind of *Enamelling* is also done with *Dutch* or *Venetian Enamels*, they are seldom used pure; for the common Way is to melt them in an Iron Ladle, with an equal Quantity of Glass or Crystal, and when the two Matters are in perfect Fusion, they draw it out into Threads of different Sizes, as Occasion requires, by taking a Quantity by two Pipe-Stopples, held in both Hands, and removing them asunder as far as the Arms will reach. If the Thread is to be longer than the Workman can stretch, a second Person takes one of the Ends, and continues to draw it out while the first continues to keep the *Enamel* to the Flame. All the Threads drawn after this Manner are round, so that if the Nature of the Work require them to be flat, they are afterwards drawn through a Pair of Pinchers while yet hot. They have another Iron Instrument in Manner of Pliers, to draw out the *Enamel* by the Lamp, when it is to be work'd or disposed in Figures, or otherwise. Lastly, they have Glass Tubes of various Sizes, serving to blow the *Enamel* into various Figures, and preserve the necessary Vacancies therein, as also to spare the Stuff, and form the Contours.

The Cake of *Enamel*, by its being applied to the Flame of the Lamp, may be drawn out into Threads so inconceivably fine, as to make artificial Plumes of Feathers. In this Operation two Workmen are employed, the first holds one End of the Cake of *Enamel* over the Flame of the Lamp, and when the Heat has soften'd it, a second Operator applies a Glass Hook to the Metal thus in Fusion, and withdrawing the Hook again, it brings with it a Thread of *Enamel* which still adheres to the Mass. Then fitting his Hook on the Circumference of a Wheel, about two Feet and a half in Diameter, he turns the Wheel as fast as he pleases; when drawing out the Threads, winds it on its Rim, till after a certain Number of Revolutions, it is covered with a Skane of enamel Thread.

The Mass in Fusion over the Lamp diminishes insensibly, being wound out, as it were, like a Pelatoon or Clue upon the Wheel; and the Parts, as they recede from the Flame, cooling, become more coherent with those next to them, and this by Degrees: The Parts nearest the Fire are always the least coherent, and of Consequence must give Way to the Effort the rest make to draw them towards the Wheel. The Circumference of these Threads is usually a flat Oval, being three or four Times as broad as thick. Some of them scarce seem bigger than the Thread of a Silk-Worm, and are flexible to a Miracle. If the two Ends of such Threads be knotted together, they may be drawn and bent, till the Aperture or Space, in the

the Middle of the Knot do not exceed one-fourth of a Line, or one forty-eighth of an Inch in Diameter. Hence M. *Reaumur* advances, that as the Flexibility of Glass, increases in Proportion to the Fineness of the Thread; had we but the Art of drawing Threads as fine as those of a Spider's Web, we might weave Stuffs and Cloaths hereof for Wear. And we have al-

ready found the Secret of making of *Enamel*, the fabulous Jets of divers Colours, sometimes used in Embroideries; and that with so much Art, that each Piece has its Hole to pass the Silk through, wherewith it is sewed: These Holes are made by blowing them in long Pieces, which are afterwards cut off with proper Tool.

ENGRAVING.

ENGRAVING, or GRAVING (from the *Latin cavare* to hollow) is the Art or Act of cutting Metals, and precious Stones, and representing Figures, Letters, and other Matters thereon.

There are at present but two principal Branches of the Art of *Engraving* (properly so called) viz. *Engraving in Creux* and *Relievo*; and *Engraving* in what the *French* call *Taille Douce*.

The Art of *Engraving in Creux* and *Relievo*, is performed with the Graver, either on precious Stones, Crystals, &c. or on Metals, as Copper, Brass, Steel, Silver, &c.

Engraving en Taille Douce, is either perform'd on Wood, and is called by the *English*, *Cutting in Wood*; or on Copper, either with the Graver, or with *Aqua-fortis*; this last Manner is also called by the *English*, *Etching*; and by the *French*, *Graver a leau forte*; or by the Knife, Burnisher, and Scraper, called *Metzotinto*.

As the *Engraving in Creux*, is the most antient Manner of *Engraving*, especially that on precious Stones, Crystals, &c. we must inform ourselves how to do it, before we proceed to the other Manners of *Engraving*.

The Tools for this Operation, are either of Iron or Brass, but most commonly of Iron; as to their Form it is various, but generally bears some Resemblance to Chissels, Gouges, &c. some having small round Heads like Buttons, others like Ferrels to take the Pieces out, others flat, &c.

Before we can pretend to *engrave* a Stone of any Kind, either Rubies, Sapphires, Emeralds, Hyacinths, Amethysts, Berills, Garnets, Agats, &c. they must be cut in the Shape or Form we want to have them, either for Rings or Seals, and very well polished. Which done, we take a little Iron Wheel made for the Purpose, the two Ends of whose Axis, are received within two Pieces of Iron placed upright, as in the Turners Lath; to be brought closer, or set farther apart, at Pleasure. At one End of the Axis, are fitted the proper Tools, being kept tight by a Screw. Then the Wheel is turned by the Foot, and the Stone applied by the Hand to the Tool, not directly, but as it were sideways; thus wearing, and as it were, grinding off the Substance. And still, whether it be Figures, Letters, or Characters, the Manner of Application is the same; taking Care to shift and conduct the Stone, as Occasion requires; and likewise to moisten frequently the Tools with Diamond-Dust, and Oil of Olives.

When the Stone is *engraved*, it must be polished on a Wheel of Brushes, made of Hogs Bristles, with Tripoli; the Ground, or plain Parts of the larger and less delicate Works, are polished with Copper, or Pewter Tools, with Tripoli, &c. which Tools are applied after the same Manner, as those wherewith the *Graving* is perform'd.

The Antients excelled in the Art of *Engraving* on precious Stones, there being divers antique Agats, Berills, Cornelians, and Onix's, which surpass any Thing of that Kind the Moderns have produced. *Pyrgoteles* among the *Greeks*, and *Dioscorides* under the first Emperors of *Rome*, are the most eminent *Engravers* we read of. The former was so esteemed by *Alexander*, that he forbid any Body else to *engrave* his Head; and *Augustus's* Head, *engraved* by the latter, was found so beautiful, that the succeeding Empe-

rors chose it for their Seal. All the polite Arts having been buried under the Ruins of the *Roman Empire*, the Art of *Engraving on Stones* met the same Fate.

That Art was retrieved in *Italy* at the Beginning of the fifteenth Century, when one *John* of *Florence*, and after him *Dominic* of *Milan*, perform'd Work of this Kind no way to be despis'd. From that Time, Pieces of that Kind became common enough in *Europe*, and particularly in *Germany*, whence great Numbers were sent into other Countries; but they came short of the Beauty of those of the Antients, especially those on precious Stones; as for those on Crystal, the *Germans*, and after their Example, the *French*, have very well succeeded.

Engraving on Steel, is chiefly employ'd in cutting Punches, Matrices, and Dies, proper for striking Coins, Medals and Counters, which are all *engraved* with no other Difference than in their great or less *Relievo*; that of Coins being much less considerable than that of Medals; and that of Counters still less than that of Coins.

The principal Instruments used in this Kind of *Engraving*, are Gravers of diverse Kinds, Chissels, Flat-ters, &c. and the first Thing which the Artist does, is to design his Figures; then he moulds them in white Wax, of the Size and Depth required, and from this Wax he graves his Punch, which is a Piece of Steel, or at least of Iron and Steel mix'd; on which, before he tempers or hardens it, he cuts the intended Figure, whether a Head or a Reverse, in *Relievo*. When the Punch is finished, he gives it a very high Temper; that it may the better bear the Blows of the Hammer, wherewith it is struck, to give Impression to the *Matrice* or *Matrix*, which is a Piece of good Steel, of a cubick Form, called also a *Dye*; whereon the *Relievo* of a Punch is struck in *Creux*; called *Matrix*, because in the Cavities or Indentures thereof, the Coins or Medals seem formed or generated, as Animals are in the Matrix of their Mother. To soften this Steel, that it may more easily take the Impression of the Punch, the Artist makes it red hot; and after striking the Punch thereon in this State, they proceed to touch up, or finish the Strokes and Lines, where, by reason of their Fineness, or the too great *Relievo*, they are any thing defective, with some of the Tools above-mentioned.

The Figure thus finished, they proceed to *engrave* the rest of the Medal, as the Moulding of the Border, the engrailed Ring, Letters, &c. all which, particularly the Letters, and Graining or Engrailment, are performed with little Steel Punches, well tempered and very sharp. Add, that as they sometimes make use of Punchcons to *engrave* the *Creux* of the *Matrice*; so on some Occasions they make use of the *Creux* of the *Matrice*, to *engrave* the *Relievo* of the Punch. When the *Matrice* is quite finished, they temper it, rub it well with Pumice-stone, and clean out the Stone again with a Hair-brush; and lastly polish it well with Emery. In this Condition it is fit for the Mill, to be used to strike Coins, Medals, &c.

Note, That to see and judge of *Engraving in Creux* and *Relievo*; divers Means have been devised, to take the Impression therefrom as the Work proceeds. Sometimes they make use of a Composition of common Wax, Turpentine, and Lamp-black; which always retaining

retaining its Softness, easily takes the Impression of the Part of the *Graving* it is apply'd to. But this only serving to shew the Work Piece-meal, they have had Recourse to other Ways, to shew the whole Figure; the first by pouring melted Lead on a Piece of Paper, and clapping the Matrice thereon: The second with melted Sulphur, managed the same Way: And the third, proper only where the *Graving* is shallow, by laying a Piece of soft Paper on the *Graving*, and over the Paper a Leaf of Lead; when giving two or three Blows with a Hammer on the Lead, the Paper takes the Impression off the Work.

Note also, That *engraving* of Seals, Stamps, Puncheons, Marking-Irons, Gilding-Irons, and other Matters, for Goldsmiths, Pewterers, Book-binders, &c. either in Relievo or Indenture, is performed after the Manner above-described.

From this Manner of *engraving*, I'll pass to that of *engraving* in what the *French* call *Taille douce*; and tho' *engraving*, or cutting in Wood, is not the most beautiful Operation of that Kind, nevertheless as it was the first invented, I'll begin by it.

The *Cutters in Wood* need no other Instruments than little sharp Knives, little Chissels, and Gravers of different Sizes, according to the Bigness or Delicacy of their Work. The first Thing they do is to take a Plank or Block of Pear-tree, or Box; though Box is the best, as being the closest, and least liable to be Worm-eaten: They prepare that Plank or Block, of the Size and Thickness intended, and make it very even and smooth on the Side to be cut. On this Plank or Block, thus prepared, they draw their Design with a Pen or Pencil, just as it ought to be printed. Those who cannot draw their own Design, as many there are that cannot, make use of a Design furnished them by another, which they fasten upon the Block with Paste made of Flour and Water, with a little Vinegar; the Strokes or Lines turned towards the Wood. When the Paper is dry, they wash it gently over with a Sponge dipped in Water; which done, they take off the Paper by little and little, still rubbing it a little first with the Tip of the Finger, till at length there be nothing left on the Block but the Strokes of Ink that form the Design, which mark out so much of the Block as is to be spared, or left standing: The rest they cut off, and take away as curiously as they can, with the Points of their sharp Tools.

This Sort of *Engraving* is used for various Purposes; as for initial or figur'd Letters, Head and Tail-Pieces of Books; and even for Schemes and other Figures, to save the Expence of *Engraving* on Copper; and for Prints and Stamps for Paper, Callicoes, Linnens, &c.

We are indebted for the Invention of *Cutting in Wood*, as well as that in Copper, to *Maso Finiguerra*, a Goldsmith of *Florence*, who found it out in the Year 1460; and for its Perfection to *Albert Durer*, *Martin of Antwerp*, and *Mark Antony*. At the same Time, *Hugo of Carpi*, an *Italian* Printer, invented a Manner of cutting in Wood; by Means whereof, the Prints appeared as if printed in clear-obscure: In order to this he made three Kinds of Stamps for the same Design, which were drawn after one another, through the Press, for the same Print; they were so conducted, that one served for the grand Lights, the second for the Demi-Teints, and the third for the Out-Lines and the deep Shadows.

The Art of Cutting in Wood, was certainly carried to a very great Pitch about 150 Years ago; and might even vye, for Beauty and Justness, with that of *Engraving* on Copper: At present it is in a very low Condition, as having been long neglected; and the Application of Artists wholly employ'd on Copper, as the most easy and promising Province: Not that but wooden Cuts have the Advantage of Copper on many Accounts; chiefly for Figures and Devices in Books, as being printed at the same Time, and on the same Press as the Letters; whereas for the other,

there is required a particular Impression. What I say here in Commendation of wooden Cuts, must be understood of those done by good Artists, who are scarce to be found at present, at least if we can judge of their Capacity by their Performances, which are so frightful, especially here in *England*, as not to bear being exposed to publick View.

Our next Manner of *Engraving* will be on *Copper* with the *Graver*; which to perform, we'll take Care to provide ourselves with *Gravers*, a *Cushion*, or *Sand-Bag*, to lay the Plate on, to give it the necessary Turns and Motions; a *Burnisher* round at one End; and usually flattish at the other, to rub out Slips and Failures, fasten the Strokes, &c. a *Scraper*, to pare off the Surface, on Occasion; and a *Rubber*, of black Cloth or Hat, to fill up the Strokes, that it may appear how the Work proceeds.

Thus provided with the necessary Tools or Instruments, we'll set ourselves to work; taking a Plate of Copper, well polished, which we'll cover over with a thin Skin of Virgin's Wax, and lay over it the Draught or Design, done in black Lead, red Chalk, or other ungummed Matter. Having thus transferred the Design upon the Wax, we'll trace it through on the Copper with a Point or Needle; then heating the Plate, and taking off the Wax, the Strokes remain; which we'll follow, heighten, &c. according to the Tenor of the Design, with the Graver, which is to be very sharp and well tempered.

Note, That in the Conduct of the Graver consists all the Art; for which there are no Rules to be given, all depending on the Habitude, Disposition, and Genius of the Artist.

Our second Operation on Copper will be with *Aqua-fortis*, in *English* called *Etching*, which is a Method of *engraving* on Copper; wherein the Lines, or Strokes, instead of being cut with a Tool, or Graver, are eat with *Aqua-fortis*.

The Operation of *Etching* is conducted thus.—The Plate being well polished, is heated over the Fire; and when hot covered over with a peculiar Ground or Varnish: When cold again, the Ground is blackened with the Smoak of a Candle; and on this Ground thus blackened, the Back of the Design or Draught is laid. This done, the Designs remains to be chalk'd or transferred upon the Plate; which is more easily effected than in the common *Graving*; for the Back of the Design having been before rubbed over with red Chalk, nothing remains but to trace over all the Lines and Strokes of the Draught with a Needle or Point; which pressing the Paper close down to the Ground, occasions the Wax therein to lay hold of the Chalk, and so bring off the Marks of the several Lines; so as at length to shew a Copy of the whole Design in all its Correctness. The Draught thus calqued, the Artist proceeds to draw the several Lines and Contours, with a Point, through the Ground upon the Copper. To finish his Work, he makes use of Points, of diverse Sizes, or Bigness; and presses on them sometimes more strongly, and other Times more lightly, according as the several Parts of the Figures require more or less Strength or Boldness; some of the Points being as fine as Needles, for the tender Hair-Strokes, and the remoter, fainter Objects; and others again as big as Bodkins, made oval-wise, for the deeper Shadows, and the Figures in the Front of the Work.

Things thus prepared, a Rim, or Border of Wax, is raised round the Circumference of the Plate, and *Aqua-fortis* poured on; which by the said Border is kept from running off at the Edges. The Ground being impenetrable to that corrosive Water. The Plate is defended from it every where but in the Lines or Hatches, cut through it with the Points; which, lying open, the Water passes through them to the Copper, and eats into the same, to the Depth requir'd; which done, it is poured off again. The *Aqua-fortis* having done its Part, the Ground is taken off, and the Plate washed and dried; after which nothing

thing remains but for the Artist to examine the Work with the Graver in his Hand, to touch it up and heighten it, where the Aqua-fortis, &c. has mis'd.

Note, That of *Etching* Grounds there are two Kinds; the one soft, and the other hard: There are also two Kinds of Aqua-fortis; the one white, which is only used with the soft Ground, and is applied as above directed; the other green, made of Vinegar, common Salt, Sal-Ammoniac, and Verdegrease: This is used indifferently with either Kind of Ground: Its Application is somewhat different from that of the white. Without making any Border, they pour it on the Plate, which is placed for that Purpose a little inclined; and as the Water runs off, it is received in a Vessel placed underneath. This they repeat, pouring it again and again, till it has eaten deep enough. Add, the Aqua-fortis, of which Kind soever it be, must not continue equally long, or be poured equally often, on all the Parts of the Design: The remote Parts must be eaten more slightly, than those nearer to the View. To manage this, they have a Composition of Oil and Grease, wherewith they cover the Parts that are to be bitten no farther: Or else they lay the Composition on as a Defensive at first, and take it off again when they think proper. In Effect, they are every now and then covering and uncovering this or that Part of the Design, as Occasion requires; the Management of the Aqua-fortis being one of the principal Concerns in the whole Art, and that on which the Effect of the whole very much depends. The Operator is also to be very attentive to the Ground, that it do not fail or give Way, in any Part to the Water; and where it does, to stop up the Place with the Composition aforesaid. Lastly, it is to be remember'd, that a fresh Dip of Aqua-fortis be never given, without first washing out the Plate in fair Water, and drying it at the Fire.

METZOTINTO, which is another Manner of *Engraving* on Copper, different from the common Way, is perform'd by raking, hatching, or punching the Surface of the Plate all over with a Knife or Instrument for the Purpose, first one Way, then across, &c. till the Face of the Plate be thus entirely furrowed with Lines or Furrows close, and as it were, contiguous to each other; so that if an Impression were then taken from it, it would be one uniform Blot or Smut. This done, the Design is drawn or marked on the same Face: After which they proceed with Burnishers, Scrapers, &c. to expunge or take out the Dents or Furrows in all the Parts where the Lights of the Piece are to be; and that more or less as the Lights are to stronger or fainter; leaving those Parts black, which are to represent the Shadows or Deepnings of the Draught.

The Discovery of the Art of *Engraving*, in *Taille douce*, or on Wood, and Copper, is ascribed, as we have already observed, to *Maso Finiguerra*, a Goldsmith of *Florence*, who used to engrave on his Works, and who in moulding them in melted Sulphur, perceived that what came out of the Mould marked in its Impressions the same Things which were engraved on the Piece of Work, by the Black which the Sulphur had extracted from the Lines; he attempted the same Thing on Plates of Silver with wet Paper, in running over it a very smooth Roller, in which he succeeded. This new Discovery prompted another Goldsmith of the same City, called *Baccio Baldini*, to try the same Thing; and the Success encouraged him to engrave several Plates of the Invention and Design of *Sandro Botticello*; and on these Proofs *Andrew Mantegna*, who was then at *Rome*, engraved several of his own Works.

The Knowledge of this Invention having passed into *Flanders*, *Martin of Antwerp*, who was then a famous Painter, engraved several Plates of his own Invention, and sent several Prints of them into *Italy*, which were marked thus; *M. C. Vasari*, in the Life of *Mark An-*

tony the Engraver, mentions several of the Subjects of those Prints, and among the rest one called the Vision of *St. Antony*, which *Michel Angelo*, yet very young, found so extraordinary, that he put it in Colours.

After *Martin of Antwerp*, *Albert Durer* appeared, and gave us a vast Number of very fine Prints, either in Wood or Copper, which he sent to *Venice* to be sold. *Mark Antony*, then at *Venice*, was so surprized at the Beauty of those Pieces, that he copied thirty-six of them, which represented the Passion of *Christ*; and those Copies were received at *Rome*, with so much more Admiration, that they were finer than the Originals. At the same Time *Hugo Carpi*, an *Italian* Painter, of an indifferent Capacity, but of an inventing Genius, discover'd the Art of *Etching*, or *Engraving* with Aqua-fortis.

These first Prints drew by their Novelty the Admiration of all those who saw them; and the most famous Painters, who work'd then for Glory, made use of them, to disperse their Works through the World. *Raphael*, among the rest, employ'd the Graver of the famous *Mark Antony*, to engrave several of his Pictures and Draughts; and those excellent Prints have been as so many Fames, which have carried the Name of *Raphael* throughout the whole Earth. Since *Mark Antony*, a great Number of *Engravers* have render'd themselves famous in *Germany*, *Italy*, *France*, and the *Low-Countries*; and have publish'd, either with the Graver or Aqua-fortis, an infinite Number of Subjects of all Kinds, Histories, Fables, Emblems, Devices, Medals, Animals, Landscapes, Flowers, Fruits, and generally all the visible Productions of Art and Nature.

These Sorts of Work can prove beneficial to Persons of all Ranks and Condition; to Theologians, devout People, Philosophers, Monks, Soldiers, Travellers, Geographers, Painters, Sculptors, Architects, *Engravers*, Lovers of Arts, the Curious in History and Antiquity; and, lastly, to all those who, having no other Profession but of honest Men, want to adorn their Mind with Perfections which can render them still more valuable.

I will not pretend to insinuate, that every Body is obliged to have all the Prints which have been publish'd, in hope of drawing some Advantage from them; on the contrary, the vast Number of them, and which would offer at once so many different Ideas, would be more capable to darken, than enlighten our Mind: Since none but those who have a vast natural Genius, and have exercised it in the Consideration of so many different Things, can see them without Confusion: But every one, in particular, can chuse the Subjects which are most proper to him, capable to refresh his Memory, or strengthen his Knowledge; in which Choice he ought to consult his Inclination, Taste, and Profession.

For Instance: Nothing is more proper for a *Theologian*, than the Prints which relate to Religion and its Mysteries, the sacred History, and all that discover the first Exercises of the Christians, their Persecution; the low Relievo's, which instruct us, in several Places, of the Ceremonies of the Pagan Religion; and lastly, all that has any Relation to Ours, either sacred or profane. For *Devout People*, all the Subjects which raise our Mind to God, and can entertain us in his divine Love. For *Monks*; the sacred Histories in general, and that of their Order in particular. For *Philosophers*; not only all the demonstrative Figures, which relate to physical Experiments, but likewise those which can increase the Knowledge they have of natural Things. For *Soldiers*; the Plans and Elevations of fortify'd Places; the Order of Battles, &c. For *Travellers*; the particular Views of Palaces, Cities, and other considerable Places, to prepare them for Things they are to see, and to preserve the Ideas thereof, after they have seen them. For *Geographers*; the Charts, or Maps of their Profession. For *Painters*; all that can strengthen them in the different Parts of their Art, as Antiques, the Works of *Raphael*,

Raphael, of *Michel Angelo*, for the good Taste, the Correction of the Design, the Greatness of the Manner, the Choice of the Hair of the Head, of the Passions of the Soul, and of the Attitudes. Those of the *Correggio* for the Grace and Fineness of the Expressions: Those of the *Titian*, of *Bassan*, and of the *Lombards*, for the Character of Truth, and the true Expressions of Nature, especially for the good Taste of the Landskip: Those of *Rubens*, for a Character of Greatness and Magnificence in his Inventions, and for the Artifice of the clear-obscure: Lastly, those which though defectuous in some Parts, contain, notwithstanding, something particular and extraordinary. For *Sculptors*; the Statues, low Relievo's, Medals, and other Antiques; the Works of *Raphael*, of *Polydore*, and of the whole *Roman School*. For Architects, the Books which concern their Profession, and which are full of demonstrative Figures of the Inventions of their Authors, or copied from Antiques. For *Engravers*; a Collection of Pieces of different Manners, either with the Graver or Aqua-fortis. That Collection must also serve them to see the Progress of *Engraving*, from *Albert Dure* to the best Artists of our Time; in passing through the Works of *Mark Antony*, *Corneil*, *Cort*, of the *Carraches*, *Sadelers*, of *Goltius*, *Muler*, *Wosterman*, *Pontius*, *Bolswert*, *Wischer*, *Le Clerc*; and lastly, thro' a great Number of others, whom I do not mention, who have had a particular Character, and who in a different Manner, have all endeavoured to imitate Nature. In comparing thus the Works of all those Masters, they can judge which of them has understood best to guide the Strokes, to manage the Light, and the Value of the Tuns, with Regard to the clear-obscure; which of them have known best to join in their Graver, Delicacy with Strength, and the Spirit of every Thing with an extream Exactness; that by those Lights they may have the laudable Ambition, to equal, if not surpass those famous Masters. For the *Curious* in History and Antiquity; all that has been *engraven* of the sacred and profane History, and of the Fable; the antique low Relievo's, the *Antonine* and *Trajan* Columns, the Books of Medals, and of *engraven* Stones, and several Prints which have Relation to the Knowledge they want to acquire or to preserve.

Lastly, nothing is more necessary than good Prints, for those who, in order to be more happy, and honest Men, want to form their Taste for good Things, and have a reasonable Tincture of the *Beaux Arts*. The Sight of those Prints with a little Reflexion, will soon and agreeably instruct them in all that can exercise their Reason, and strengthen their Judgment. They will fill up their Memory with curious Things of all Times, and of all Countries, and teach them at one and the same Time, the different Histories, and the different Manners of Painting; of which they'll soon be competent Judges, through the Facility they'll find in turning over a few Leaves; and comparing the Productions of one Master with those of another, and thus in sparing their Time, they'll also spare their Expences. For it is almost impossible to collect in the same Place, Pictures of the best Painters, in a Quantity sufficient to form to one's self a compleat Idea of the Work of each Master; and when at a vast Expence, one could fill up a spacious Cabinet with Pictures of different Manners, he could never have at last but two or three of each, which is not sufficient to form a very precise Judgment of the Character of the Painter, nor of the Extent of his Capacity; whence, through Means of the Prints, one can see on a Table, without the least Trouble or Difficulty, the Works of different Masters; form an Idea of them, judge of them by Comparison, chuse them, and gain by that Practice, an Habit of good Taste and of good Manners; especially when that is done in the Presence of some Body who has a just Discernment in those Things, and knows how to distinguish the good from the indifferent.

But nothing can be prescribed to *Connoisseurs*, and the Lovers of Arts; every Thing is as it were, under

the Empire of their Knowledge; which they cultivate by the Sight, sometimes of one Thing and sometimes of another; because of the Utility which accrues from it, and the Pleasure they take in it. They have, particularly, that of seeing what has been *engraven* from the most famous Painters, the Origin, Progress, and Perfection of the Works, they follow them from the *Giotto*, and *Andrew Montaigne*, to *Raphael*, to the *Titian*, and to the *Caraches*. They examine the different Schools of those Times, they see into how many Branches they have been divided, by the Multiplicity of their Disciples; and in how many different Manners, the human Genius is capable to conceive the same Thing, which is the Imitation; whence have proceeded some various Manners, which, Time, the Genius, and Nature, have produced.

Among all the good Effects which the Use of Prints can produce, I'll content myself with mentioning here only six of them, whereby it is easy to judge of all the others.

The first is to divert us, by the Imitation, and in representing to us the Things visible.

The second is to instruct us, in a quicker, and more pathetick Manner, than it can be done by Words.

The third is to abridge the Time, which we would employ in Reading over the Things which we have forgotten, and to refresh the Memory at one Sight.

The fourth is to represent the Things absent, as if we had them before our Eyes; and which we could not see, but by undertaking tedious and expensive Journeys.

The fifth is to procure us an easy Means of comparing several Things together, by the small Space which Prints take, in their great Number and Variety. And,

The sixth to form the Taste for good Things, and to give us at least a Tincture of the Arts and Sciences, which no polite Man ought to be ignorant of.

These Effects are but general, but each Person can be sensible of some particular ones, according to his Knowledge and Inclination; and it is by Means of those particular Effects only, that every one can regulate or order his Collection of Prints.

The Admirers or Lovers of History, for Instance, chuse only those Subjects which have Relation to it, and let nothing escape their Curiosity; they observe this Order which cannot be too much admir'd. They follow that of the Countries, and of Times; and all that has any Relation to each Country in particular, is contained in one or two Book-Cases, in which are found:

First, the Pictures of all the Sovereigns who have reign'd in a Country, the Princes and Princesses descended from them, those who have distinguished themselves in a particular Manner either in the State, Church, Army, or the Judicature. Those who have rendered themselves famous in their different Professions; and those who have some Part in the historical Events. They accompany those Pictures with some Lines, which mark the Character of the Person, his Birth, his most remarkable Actions, and the Time of his Death.

Secondly, the general and particular Charts of that Country, the Plans and Elevations of its Cities or Towns, what they contain the most considerable; the Castles, Royal Palaces, and all other particular Places which have deserved being rendered publick.

Thirdly, all that has some Relation to History, as publick Entries, Carouzals, Funerals, Catafalcas; what concerns the Ceremonies, Manners and Customs; and lastly, all the particular Prints which are historical.

This Research made for one Country, is continued for all the others with the same Economy.

Those who have a Passion for the Arts, follow another Method; they make Collections with Regard to Painters and their Pupils. They place for Example, in the *Roman School*, *Raphael*, *Michel Angelo*, their Disciples and Contemporaries. In that of *Venice*, the *Giorgion*, *Titian*, the *Bassans*, *Paul Veronese*, *Tintoret*,
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and the other *Venetians*. In that of *Parma*, the *Correggio*, the *Parmesan*, and those who have followed their Taste. In that of *Bologna*, the *Caraches*, the *Guide*, the *Dominican*, *L'Albane*, *Lanfranc*, and the *Guarabini*. In that of *Germany*, *Albert Dure*, *Holbens*, *William Baure*, and others. In that of *Flanders*, *Otho-Venius*, *Rubens*, *Vandeik*, and those who have practised their Maxims; thus of the *French School*, and those of other Countries.

Some collect their Prints, with Regard to the *Engravers*, without any to the *Painters*; others with Regard to the Subjects they represent, and others in another Manner. It is but just to leave to every one the Liberty to act in those Occasions, as it suits best his Genius and Inclinations.

Though we can at all Times draw some Utility of the Sight of Prints, Youth, notwithstanding, is the properest Age for it; the Faculty of the Soul which manifests itself more in Children, is Memory, and that Faculty ought to be made use of as a Magazine, to instruct them in Things, which can contribute most towards forming their Judgment.

But if the Use of Prints is advantageous to Children, it is likewise a very agreeable Entertainment for old Age, which is a proper Time for Repose and Reflections; and in which, being no longer distracted by the Amusements of our younger Days, we can with more Leisure, taste the Pleasure which Prints are capable to give us; either by teaching us new Things, or by calling back the Ideas of those we know; or because having a Taste for the Arts, we are capable to judge of the different Productions, *Painters* and *Engravers* have left us; or because not having that Knowledge we are flattered with the Hope of acquiring it; or lastly, because we search in that Pleasure, that of exciting agreeably our Attention, by the Beauty and Singularity of the Objects which Prints offer to us. For we find in them the Countries, Cities, and considerable Places we have read in History, or have seen ourselves

in our Travels; so that the great Variety, and great Number of curious Things we meet with in them, can even serve in lieu of a Journey, and of a very com- modious and very entertaining one, for those who have never made any, or are not in a Condition to make any.

If the Antients had had the same Advantage in that we have, and could, by Means of Prints, have transmitted to Posterity all that was beautiful and curious among them; we should see an infinite Number of fine Things, of which Historians have left us but a confused Idea. We should see those superb Monuments of *Memphis* and of *Babylon*, of the Temple of *Jerusalem*, which *Solomon* had built with so much Magnificence; we could judge of the Edifices of *Athens*, *Corinth*, and of the antient *Rome*, with a better Foundation still, and more Certainty, than by the single Fragments we have left of them. *Pausanias*, who gives us so exact a Description of *Greece*, and has led us as by the Hand, through all the different Places of that enchanting Country, could have accompanied his Discourses with demonstrative Figures, which had been transmitted to us; and we had seen with Pleasure, not only the Temples and Palaces, such as they were in their Perfection, but had likewise inherited from the antient Workmen, the Art of Building them well. *Vitruvius*, whose Demonstrations are lost, had not left us in the Ignorance of all the Tools and Machines he has described, we should not find in his Books so many dark Places, if Prints had preserved to us the Figures he had made, and mentions himself. It is likewise for Want of these Means, that we have lost the Machines of *Archimedes*, and of *Hero* the Antient, and the Knowledge of several Plants of *Dioscorides*, of a great Number of Animals, and of curious Productions of Nature discover'd by the Antients. But without amusing ourselves to regret what we have lost, let's make a good Use of those which has been sav'd by Means of Prints.

ETHICKS.

ETHICKS, or *moral Discipline*, is a practical Science, or Prudence for the Direction of human Acts, according to the Rules of Honesty, in View of an eternal Felicity.

1. It is called a Science, because it draws true Conclusions from true Principles, v. g. from this, *do not to others, what you would not have done to yourself*; whence it is inferred, that we are not to rob, calumniate, kill, &c. for this Principle is so clear, that it can be very well understood with the least Attention, and only pertains to *Intelligence*, as they call it. But the *Intelligence* of those first Principles in Morals, is called *Synderesis*, or much better, *Synteresis*, i. e. Conservation; whereby the Mind desires always to keep herself immaculate, or free from Sins; which *Spark of Conscience*, says St. Jerome, in cap. 1. Ezekiel, is not extinguished even in Cain's Breath, after the Perpretation of his Sin. Whence it is called the *Virgin Portion* of the Soul; because it has not been vitiated by the Original Sin, it remains uncorrupted, and though conquer'd by the Rage and Fury of our Voluptuousness, makes us nevertheless sensible of our Guilt, says again the same Father.

2. *Ethick* is called a practical Science, because it does not content itself with the simple Contemplation of the Object, but proceeds to Practice. For it is not the sole End of the *Ethick*, that we should know only the Rules of Manners, but that we should also conform our Actions to those Rules.

3. It is called Prudence, i. e. the Knowledge of Things we ought to do; for the Name of Prudence signifies properly the Science of Things, which can be justly acted or done. Whence the Science of the Law, is called *Jurisprudencia*.

4. It regards the human Acts, i. e. those human Acts done with Reflection.

5. It regards those Acts as they are to be conformed to the Rules of Honesty, in View of an eternal Felicity. For the *Ethicks*, or *Science of Manners*, has been invented for to find out Rules for the Direction of our good Actions, in View of an eternal Felicity.

Those Rules of Manners, or of a *moral Honesty*, are the *divine Laws* and our *Reason*, and all the other Laws and Regulations which flow from them. And by the Observance of those Laws, Mankind are conducted to the Fruition of the sovereign Good, as to their last End; for it is an Act of a consummate Prudence in us, never to deviate from that Road, but to follow it carefully, whatever Condition or State of Life we may have chosen.

As there are three principal Kinds of Life, viz. either in a Solitude, or in a Family, or in a City, the Scholasticks have distinguished three Sorts of *Ethicks*, or Morals, viz. the monastick, which directs a Person who leads a solitary Life; the œconomical, which takes the Conduct of a Family, and the political, that of a Republick. But as there can be but the same Rules, (which are the Rules of Honesty, in View of an eternal Felicity) for the Conduct of a Person, let him live either in a Solitude, or in a Family, or in a City, that Distinction must be needless. For it is very well known, that every Science is specified by a formal Object; therefore there cannot be different Sorts of Discipline, unless there be different Sorts of formal Objects. Besides it is a generally receiv'd Maxim, that every Man in his Condition, is obliged to conform his Actions to the same Rules of Honesty; to love God above all Things, and all Things for him; to

not do to others, which he would not have done to himself, &c.

From these general Observations, I'll pass to the Division of this my Treatise of *Ethicks* into four Parts.

In the first, I'll treat of the sovereign Good, or last End of all human Acts. In the second, of the human Acts, and their Rules. In the third, of Virtues and Vices. And in the fourth, of the various Offices of Life, either with Regard to God, to ourselves, or our Neighbours.

Aristotle and *St. Thomas*, have both been of Opinion, that *Ethicks* should begin by the Consideration of the sovereign Good; that the Instruction of Manners, should be measured by the End proposed therefrom, and that no Body can pretend to undertake an honest Course of Life, without his being previously well acquainted with the Road that leads to it. Hence this common Proverb, that *the End is first in the Intention, and last in the Execution, or Affecution, finem esse primum in intentione, & ultimum in executione, seu affecutione.*

Therefore I must treat in the first Part of Man's sovereign Good, or last End. But I must search first, which is that sovereign Good, which that End; that we may easier discover the last End of all human Acts.

The Good I design to mention and consider in this Place, is the *metaphysical*, or *physical Good*, which is either God himself, or a created Thing (reserving to treat of the moral Good, when I come to treat of the Probity of Manners, and of the Honesty of our Actions) which metaphysical, or physical Good, is either entirely perfect, or at least perfect in its Manner. For such is the Notion we must have of a metaphysical or physical Good. On the contrary, the metaphysical, or physical Evil, of which Kind are Ignorance, Blindness, &c. is that which is imperfect and lame.

Good and Evil, either *metaphysical*, or *physical*, can be considered either absolutely, as good or bad in itself, or perfect or imperfect in its Manner; or comparatively, *i. e.* as it is good to some and bad to others. In this last Manner, Good is consider'd by *Aristotle*, at the Beginning of his first Book of *Ethicks*, where he prizes the antient Philosophers for their having defined Good, that which all Things desire; *id quod omnia appetunt*; not that every Thing desires all that's Good; but because each Thing inclines towards that which is the most agreeable to him; according to what the Poet says:

*Torva læna lupum sequitur, lupus ipse capellam,
Florentem Cytisum sequitur lasciva capella,
Te, Corydon, ô Alexis, trahit sua quemque voluptas.*

We distinguish in the Schools three Sorts of Appetites, whereby each inclines towards that which is good to him; *viz.* the *natural*, *sensitive*, and *rational Appetite*.

We call *natural Appetite*, the natural Propensity of all Things, even those which are destitute of Sense, towards their Good: Thus it is said improperly, that the heavy Bodies have a natural Appetite to tend downwards; and light Bodies, to depart or avoid the Centre. But I am afraid, that this Manner of Speaking attributes a spiritual Affection to a corporeal Thing, contrary to what is prescribed by the Logick in the Categories. For what can be the Cause that a Stone, for Instance, should rather tend towards the Centre, than towards a high Place? Can it be any Thing else but the Impulsion of the fluid Matter, as we'll shew in our Treatise of *Mechanicks*. Therefore when it is said, that certain Plants are placed in humid Places, and others in dry Places, &c. the Speech is metaphorical, and neither proper nor natural: For, properly speaking, we are to attribute no Kind of Appetite to Things corporeal; but their whole Motion is to be referr'd to an impulsive Cause, which often escapes our Sagacity.

The sensitive Appetite, is that which follows the Perception of our Senses; and the *natural Appetite*, which is joined with the Perception of the Mind, is called Will. This rational Appetite, so far as it is directed in general by the Author of Nature, towards Good, is very well called *natural Appetite*: For we have all an innate Inclination or Appetite, which cannot be conquered, for our Good or Happiness. From this Appetite proceeds that Love for all the Good we are deprived of: For when we love ourselves, that Love has not always for Object the proper Gifts of Nature, which we imagine ourselves to be enriched with, but we desire something else which we imagine could still render us happier and more perfect; or rather we are the *Subject* to whom we wish something. For if our natural Love was never by the Force of our Liberty to forsake the sovereign Good, and fix itself on Things created, it would always be good, and never bad; but we too often covet what is prohibited, and criminal; and embrace as a real Good, what only deceives us by an outward Appearance of Good.

Therefore the relative Good, or the Good which seems agreeable to us, and as such is the Object of our Desires, as supposed capable to help, and please us; is either the sovereign Good, or good by its Essence; or a Good by Participation, which very often has but the single outward Appearance of Good.

There is but one *essential Good*, which is God himself, who alone is properly, and of himself, Good. As *Christ* witnesses it, *Luc. v. 19. Nemo bonus nisi solus Deus.*

Good by Participation is a created Good, and this is either a Thing or Substance, which is good to us; as are the Aliments, Cloaths, &c. or the Modification or Affection of a Thing, which helps us likewise, whether it has a Report to the Body or to the Mind. Hence Good is commonly distributed into the *Good of the Body*, such as Health, Strength, Beauty, &c. *Good of the Mind*, as Science, Virtue, &c. and *Goods of Fortune*, such as Houses, Lands, Money, &c.

We desire all these Things because they are useful, or agreeable only, or honest; whence that famous Division of Good, into honest, agreeable, and useful. We call *honest*, that which is agreeable to Order, or rather to the Rules of our Reason, as Probity, or Virtue: *Agreeable*, that which pleases or delights us; *v. g.* some are pleased with Plays and Spectacles, some in Company, others with studying the liberal Arts, and the Practice of Virtue, others with telling their Money, &c. Lastly, the *Utile*, which is that which procures us some other Good, as a bitter Potion, which can procure the Recovery of Health.

The preceding Definition, or Division of Good, have given Occasion to several *Queries*, which, at present, are very common in the Schools; for it is asked, 1. Is Good of itself so desirable, as to never become an Object of Hatred? To which I answer, that Good is to be considered, either absolutely or comparatively. If we consider it absolutely, *i. e.* as in as much as it is good in itself, and perfect in its Manner, without any Relation of *Convenience* towards us, it excites our Esteem, or Admiration, but not our Love; for it cannot excite our Love unless it be appropriated to our Nature; nor even without that can it be esteemed as good by us. Whence *Cicero, lib. 5. de sine bon. & mal. bonum appello quidquid secundum naturam: quod contra malum.* But if Good be considered with regard to us, or as far as it actually is agreeable to us; it is then so much the Object of our Desires, as it cannot become that of our Hatred. For it is impossible our Will should hate that which flatters it agreeably; since the Nature of our Will is such, that it is always inclinable to love what pleases her. Whence it is, that our Will is necessarily determinated to love the sovereign Good, because the sovereign Good is always agreeable, and can never be disagreeable. But as particular Goods are subject to Mutability, and are sometimes agreeable, and sometimes disagreeable, *v. g.* Victuals and Drink, which please those who are hungry and dry, and are offensive to those who have took their

their Refection; whence it follows, that we love or hate the one and the same Thing, according as it appears good or bad to us: And if they appear neither good nor bad, we see it with Indifference; and therefore there is but one single incommutable Good; viz. the Almighty himself, whose Fruition will inebriate us with a Torrent of the purest Pleasures, beyond all Kinds of Satiety.

They ask, 2. If our Will hates Evil in such a Manner, as to never be capable to love it, as an Evil. I answer, that Evil, like Good, can be considered, either absolutely, or as an Evil in itself; or comparatively, as an Evil with respect to us. If we consider it in the first Manner, it is not impossible that Evil might be beloved by a created Will; because we often love bad and imperfect Things, provided they do not appear so to us. But if Evil be considered in the second Manner, *i. e.* as it is such with respect to us, or as it actually offends us, it cannot be the Object of our Love: Because the human Will cannot love a Thing which has no attractive Charms; which is the Case of Evil, as Evil with respect to us. Whence St. August. lib. 2. confess. num. 20. teaches, that no Body sins without his being engaged to it by some Appearance of Good. *Nec ipse igitur Catilina amavit facinorosa, sed utique aliud, cujus causa illa fallebat, ut scilicet illa exercitatione celerum capta urbe honores, imperia, divitias assequeretur.*

If it be objected that there are some Sins which proceed from pure Malice, and consequently that we can desire Evil, purely as it is an Evil, and in no other View: I'll answer, that though some Sins are called of pure Malice, because they are not committed either through Ignorance or Infirmary; and consequently are not excusable; the Guilty are notwithstanding prompted to commit them by some specious Appearance of Good; as when a Person in hope of Impunity, or without the least Provocation wounds another, or fires a House, he is excited to it, by some brutal Pleasure, otherwise he would not do it.

Likewise, when those reduced to Despair, wish to be no more, they do not wish that as an Evil to them, but as the End of all their Evils, and consequently consider it as a Good. On the contrary, the damned Souls in Hell, fly God, though he be the sovereign Good; because they look upon him as an Evil, if not absolutely, at least with respect to them, *i. e.* an implacable, and severe Punisher of their Crimes.

Therefore we are not to imagine that St. Paul has wished with an express Will, to be separated from God, which is the greatest of all Evils, when he said, Rom. ix. 3. *For I could wish that myself were separated from Christ for my Brethren:* Which must not be understood of a formal, and perfect Will, but only of a Velleity; since the Apostle knew very well that it was impossible to desire, as he did, to be united to Christ, and desire at the same Time, to be separated from Christ: For we never properly and expressly desire, what we know to be impossible; though, sometimes, through an Excess of Love, we abandon ourselves to Exaggerations.

The same Thing must be believed of the Desire of St. Paul, and of Moses's Prayer, Exod. xxxii. 31. who addressing himself to God, says, *Oh, this People has sinned a great Sin, and have made them Gods of Gold. Yet now if thou wilt forgive their Sin: And if not, blot me I pray thee, out of thy Book which thou hast written.* On which Passage, St. Augustin writes, quest. 147. in Exod. *Securus quidem hoc dixit, ut a consequentibus ratiocinatio concludatur; id est ut quia Deus Moysen non deleret de libro suo, populo peccatum dimitteret;* he spoke thus safely, says St. Augustin; that the Discourse should be concluded by what follows, that is to say, that as God was not willing to blot out Moses from his Book, he should forgive the People their Sins. For it was impossible that he who had always been united to him, by a sincere and pure Love, should be eternally separated from him. Which both Moses and St. Paul knew perfectly well: Whence neither of them con-

sentent of a formal Will, to their eternal Separation from God.

The same Answer must be given to all the other Objections taken either from the Scripture or the Fathers. For Instance, when it is said Genes. viii. 21. *For the Imagination of Man's Heart is evil from his Youth;* this Evil must not be understood of that which is not agreeable, but of the Volupties which excite our Senses, and consequently are received under the Appearance of Good.

They ask, 3. If the agreeable and profitable Good, are truly Good; or rather if none but the honest Good, or Virtue, deserve that Name? I answer, first, that the utile and agreeable Goods are neither good of themselves, nor morally evil, or comparatively to human Manners. For the utile and agreeable Good are either Goods of the Mind, or of the Body, or of Fortune. But those Goods are neither properly good nor morally evil; but only the Use we make of them is either good or bad; therefore they are Good, to those who make a good Use of them; and Evil to those who make a bad one, and consequently are neither good of themselves, nor morally evil. Virtue alone, or virtuous Acts, are to be esteemed morally good; provided we do not understand by Virtue, the Pride of the Stoicks, which make them say that a wise Man is sufficient to himself, and wants nothing else but his Wisdom. For such Vain-glory is so far from deserving to be called good, that it is rather the Cause and Source of all Evil.

I answer, secondly, that the agreeable and utile Goods, can be called physical, or metaphysical Goods. For every Thing that can help Mankind, can be called at least physical or metaphysical Good. For the Essence of a physical or metaphysical Good consists, in that it is perfect in its Manner, and can be of some Succours; which is the Case of utile and agreeable Goods, let them be Good of the Mind, or of the Body, or of Fortune, which all can help a Man to acquire others with a greater Facility; for he who possesses Science, or Strength, or Riches, which are all agreeable and utile Good, perform a great many very fine Things, which others who are destitute of those Advantages, can't. Therefore the honest Good, is not only physical or metaphysical Good; but all that is agreeable and utile must be ranked among those Goods.

They ask, 4. If something can be called utile, which is not honest? To this I answer, first, that the Name of utile is ambiguous, and its Signification uncertain. For if it be taken for all that, without Distinction, is conducive towards obtaining something else; I do not see why, that which is not honest, should not be sometimes esteemed utile. Since, for Example, nothing is less honest than Calumny, which notwithstanding proves sometimes utile, to those who desire to distress, or ruin others, or supplant them in their Posts. Likewise several make use of Money acquired by an unlawful Means, to buy Honours, Dignities, &c. and thus of all the rest. But if we take utile, for that only which procures our moral Advancement, renders us better, and disposes us to the Acquisition of the Sovereign Good; there can certainly be no utile Good repugnant to Honesty; since that Kind of Good, if it can be call'd Good, wounds deeply that principal Part of us, which is semblable to God, I mean our Reason; and consequently is rather to be esteemed an Evil, than Good. Whence,

I answer, secondly, that all that is contrary to Honesty, is not properly to be call'd utile; which is the Sentiment, not of the Stoicks only, but likewise of the Peripateticians, and other Philosophers, who defend it, against those who measure all Things by what is commodious and utile. Therefore that cannot be properly called utile, which is more hurtful than profitable; for *proprie bona dici non possunt que plus incommodi quam commodi habent,* says the 83d Law of the Digest, Title, *De Verbor. signific.*

Therefore, tho' several imagine certain Facts utile, which

which are not at all agreeable to Honesty, as Theft, Lyes, &c. they are not to be believed; though they be in a greater Number than those of a contrary Opinion; for very few know how to distinguish between true and false Good. According to this of *Juvenal*, at the Beginning of his tenth Satyr.

*Omnibus in terris, quæ sunt a Gadibus usque
Auroram & Gangem, pauci dignoscere possunt
Vera bona, atque illis multum diversa remotâ
Erroris nebulâ, &c.*

The next Thing which falls under our Consideration, is the End of *Things*; for it is certain, that every Thing has been created for one End or other, though several of those Ends are not yet, and in all Likelihood never will come to our Knowledge. But some of those Ends are so clearly and perfectly known, that none but the *Epicureans* call them in question. Why, *v. g.* should Feet be given to Animals, but that they should walk; Ears that they should hear; Eyes that they should see? Thus the Roots of Trees are dispersed through the Ground, that they may receive the Aliments, &c. Therefore, there is scarce any Thing less probable, than what *Lucretius* says, *Lib. 4. de rer. natur.* in the Name of all the *Epicureans*, that the Eyes have not been given to see, nor the Feet to walk, &c. but that those have seen, and these walked after they have been formed. Thus he expresses himself, Verse 832, and following.

*Nil ideo quoniam natum est in corpore, ut uti
Possimus: sed quod natum est, id procreat usum.
Nec fuit ante videre oculorum lumina nata:
Nec dictis orare prius, quam lingua creata est:
Sed potius longè lingue præcessit origo
Sermonem: multo quæ creatæ sunt prius aures,
Quam sonus auditus: & omnia denique membra
Ante fuere, ut opinor, eorum quam foret usus.
Haud igitur potuere utendi crescere causâ.*

As it belongs to the divine Providence to direct each Thing to its End, and that this vast Universe cannot be governed without the consummate Wisdom of the Creator, I cannot subscribe to the Sentiment of the *Epicureans*, and of *Lucretius* in particular; and tho' we have not yet discover'd the End of all Things in particular, we, notwithstanding, are very sure, that the Creator has appointed an End for each created Thing in particular.

Therefore all corporeal Things, either celestial or sublunary, even the Brutes which have no Faculty to govern themselves, or Reason, are directed and moved by the omnipotent Being towards their End, as an Arrow is directed by the Archer. But rational Creatures, as are Angels and Men, tend toward their End of their own proper Will; and chuse the Ways which they judge the most proper to conduct them to their Ends. Whence they are invited by the End, neither could they ever be persuaded to act, without some End; but move themselves of their own Accord, and with a previous Knowledge of their Understanding towards that End, which they know very well to be such.

An End is defin'd by *Aristotle*, *Lib. 2. Physic. c. 3.* *id cuius gratia fit aliquid*; that in View thereof something is done. There are two Sorts of Ends, *viz.* the End which is desired, and the End for which something is desired. For Example, the End desired in the Construction of a House, is a commodious Habitation; and the End for which that commodious Habitation is desired, is the Person who is to live in it. Again, there is the End of the Work, and the End of the Workman.

The End of the Work, or Operation, is that intended by the Work itself, as the End of Study is the Knowledge of Truth; because we must study only to discover the Truth.

The End of the Operator, or Artificer, is that intended by him; as the End of him who learns or teaches Philosophy, can be the Love of Truth, or a

vain Curiosity, or something else.

Lastly, the End either of the Work, or of the Workman, one is the first, which is first intended; the other the second, or that which is placed between two, and the other the last, to which all the others have a Relation. Which last End is nothing else, but God himself, from whom all Things flow, and to whom they all return.

But though all Things tend towards procuring the Glory of the Creator, and are all moved by his special Favour; the rational Creatures are said, notwithstanding, to have that Tendency towards God, as their sovereign Good in a more particular Manner; as being sole capable of his Possession. Hence *Boetius*, *Lib. 3. de consolat. Philosoph. prof. 2. Omnis*, says he, *mortalium cura, quam multiplicium studiorum exercet, diverso quidem calle procedit, sed ad unum tamen beatitudinis finem nititur pervenire.*

This last End is defin'd by *Cicero*, *Lib. 2. de finib. bon. & mal.* That, by which all Things are done well, and are related, and itself is related to nothing. In the same Sense it is defin'd in the Schools, that which is desired for itself, and all Things desir'd for it. This End is either the true, proper, and natural End of all Things, *i. e.* to which all other Things have a natural Tendency, or is arbitrary, depending either on the Levity, or Impetuosity, or Affection of the Mind; such is Money with Respect to the Avaricious, Voluptuousness with Respect to the Voluptuous, &c.

But however, let it be how it will, it is certain, that the last, true, proper, and natural End of all created Beings, is God himself. Therefore, whosoever by a preposterous Love of himself, or of any other created Being, reports all Things to himself, or to that other created Being, as to their chief End, confounds the natural Order of Things.

If it be objected, that bad Actions being not related to God, he cannot be the chief End of all Things, I'll answer, that it is true, that in our Intention, bad Actions are not related to God; but they are so in Effect. Let it be granted then, our bad Actions have no Relation to God, because in those Actions, far from thinking of God, we depart from him as much as it is in our Power; but notwithstanding, they in reality tend towards God, either because he takes an adequate Satisfaction for the Injury done to his Glory, by punishing them eternally; or else, because in all those Things we search the sovereign Good, *i. e.* God himself, known, if not *explicitely*, at least *implicitely*; therefore we are carried by a natural Instinct to him, who alone can be the Cause and Principle of our Felicity. Hence *St. Augustin*, *Lib. 1. solil. num. 2.* otherwise *c. 3.* thus speaks to God, *Deus quem amat omne quod potest amare, sive sciens, sive nesciens.*

But that Motion whereby all Men incline towards God, is often interrupted by them; especially when they repose themselves in the Creatures, and search the sovereign Good where there is no true and solid Good, but only an apparent one to be found. Tho' this cannot be an Obstacle to God's being called the proper and natural End of all created Beings, but more particularly of Men; either because all Things and all Actions are terminated in God, or because God alone is, lastly, searched by us, though sometimes we know nothing of it ourselves; because he can alone appease our Desires, or gratify them. *Est enim*, says *Boetius*, *Lib. 3. de consolat. Philosoph. prof. 2. omnium summum bonorum, cunctaque intra se bona continens, cui si quid absoret, summum esse non posset, quoniam non relinqueretur extrinsecus quod posset operari.* Therefore in him alone, and not in a created Good, confin'd within very narrow Limits, we ought to put our whole Felicity, which according to the Definition of the same *Boetius*, is a State perfect by the Assemblage of all Sorts of Goods.

It is a State, *i. e.* a Condition of Life, stable and permanent; otherwise it could not be a blessed State.

Secondly, it is perfect by the Assemblage of all Sorts of Goods, to the Exclusion of all Evils, because

it comprehends the sovereign Good.

This is the Notion of a true *Beatitude*, though *Beatitude* is commonly distinguished into two Sorts; one which is a *natural* and imperfect *Beatitude*, or the *Beatitude* of the *Way*; and the other *supernatural* and perfect, or the *Beatitude* of the *Patrie*. I'll speak of these two *Beatitudes* in their Turn, and begin by the *natural Beatitude*.

When I mention here a natural Felicity, I do not understand as I have done in the preceding Article, the chief End of all human Acts, proper and physical; but only that Felicity, which the Philosophers have assured us, can be acquired in this mortal Life, by our own natural Forces; which is so imperfect and lame, that it scarce deserves the Name of Felicity; which is perhaps the Reason, why the antient Philosophers have taken so much Pains to establish it. For as they could discover nothing among all created Beings that could entirely satisfy the human Desires, they examined every one of them in vain, and after they had refuted the contrary Opinions, they at last could fix on nothing. Which Uncertainty, created an infinite Number of Opinions, all different from one another; for St. *Augustin*, *Lib. 19. de civit. Dei, c. 2.* quotes from *Varro*, two hundred and eighty eight different Sentiments of Philosophers, on *Beatitude*. Therefore it is true what *Seneca* says, at the Beginning of his Book of a *Blessed Life*, *That all want to live happy, but when they attempt to discover what can render Life happy, their Eyes grow dim.*

But as it would be too prolix, and in some Measure needless, to rehearse here all those different Opinions, I'll confine myself to those which have made a greater Number of Partisans, and begin by the Sentiment of the *Epicureans*.

The antient and modern Philosophers, do not agree among themselves, what was the real Sentiment of *Epicurus*, of the human Felicity. For as that Philosopher places that Felicity in the Sense of Voluptuousness, some have imagined that he meant thereby a sensual Voluptuousness, others that he only understood the Tranquility of the Mind. The first Opinion has gained the greatest Number of Partisans; who have sent down to Posterity the Reputation of *Epicurus*, asperfed with such filthy Spots, that it is almost impossible to wash it off. Others, however, as well in past Ages as in our Time, have endeavour'd to clear him of that Infamy; as *Torquatus apud Tull. Lib. 1. de finib. bon. & mal. Seneca, Lib. de vit. beat. c. 13. Diogenes Laertius, Lib. 10. Gassendi*, in his Animadversions on the 10th Book of *Laertius*, and especially in the 7th Book of the Life and Manners of *Epicurus*, c. 4, 5. &c. *Erasmus*, in the Colloquy, intitled *Erasmus*. For all these pretend that *Epicurus* led a very regular Life, has commanded nothing but what is right and just, and meant no other Voluptuousness, than that which arises from the Practice of Virtue.

As to what regards the *Cyrenaicians*, who had for their Chief *Aristippus Cyrenensis*, it is without doubt, that they propos'd to themselves no other Felicity, but that which consists in filthy and sensual Voluptuousness. As witnessed by *Cicero, Lib. 3. de offic.* towards the End. The impure *Mahomet*, is of the same Sentiment in his Alcoran, which his Followers call the *Book of Precepts*; and which he has written for the *Musulmen*, i. e. for those who call themselves by *Antoniasy*, devoted to God. For where he speaks of the Paradise which he promises to his Partisans, in the Chapter of the Cow, of Women, &c. it inculcates particularly the sensual Pleasures, and engage them to the Observance of his Law, by the Hope of such a Reward.

But however, if *Epicurus* has propos'd the sensual Pleasures as the sovereign Good, with the *Cyrenaicians*, *Mahometans*, and the vilest Tribe of the most filthy Men, he has pursued rather the Felicity of the Brutes, than a human Felicity.

But if *Epicurus* is to be understood of the Voluptuousness of the Mind, which those enjoy who live pi-

ously and soberly, I'll deny with *Seneca*, the Sect of *Epicurus* to be that of the Wicked; though Rebaucheries, and Brutalities. However it is impossible to obtain any other natural Felicity, but that which consists in the Tranquility of an innocent Mind, and in the agreeable Practice of Virtue.

If it be objected by the *Cyrenaicians*, that the sensual Voluptuousness is desired for itself; and thus can supply the Place of the sovereign Good. I'll answer, first, that the sensual Voluptuousness is not desired by every Body as a sovereign Good, but only by those who being drowned in Blood and Flesh, have no Taste for spiritual Pleasures. Secondly, it is deceiving one's self to esteem a sovereign Good that which is desired for itself, without the least Appearance of Reason, by some; otherwise we should consider Wealth and Honours, which are desired for themselves by the Avaricious and Ambitious, as a sovereign Good; but that only is to be called sovereign Good, which can satisfy the Appetite of a Man, and can be possessed without Satiety and Anxiety. *What shall I say of the sensual Voluptuousness, says Boetius, Lib. 3. de consol. Philosoph. prof. 7. the Desire whereof is full of Anxiety, and the Satiety of Repentance?*

The Sentiments of the *Stoicians*, on the human Felicity, is diametrically opposite to that of the *Cyrenaicians*; for they place that Felicity in the sole Virtue of the Mind, which they call *Wisdom*; as they do Misery, in the sole Malice, which they stile *Folly*; and in such a Manner, that even in the Privation of all the agreeable and profitable Goods, provided there was no Malice, they esteemed that Man happy, who should be indued with Virtue and Wisdom. Because they pretended, that that Wisdom was sufficient to itself, and wanted no foreign Succours; whence if the Acquisition of the corporeal Goods, and those of Fortune, could be desirable, it is not at all necessary; since without it, a wise Man can esteem himself happy. Nay, that it is even sometimes expedient for a wise Man to procure his own Death, as did *Marcus Cato*, after the Battle of *Pharsalia*, not to be obliged to lead an ignominious Life. Therefore they called all other Goods, except Virtue, Preferment, and Commodities, not real Goods; as they did not use to call any Thing else, except Vice and Folly, Evils, but only Incommodities, and Things to be avoided.

But to be better informed of this Opinion, we must consult *Seneca*, a strenuous Asserter of the Sect of the *Stoicks*, who teaches, *Epist. 45. That it is not he whom the Vulgar call happy, or who possesses immense Riches, that is really so; but only he, whose whole Possessions are in his Mind, and despises Pride, Grandeur, and Magnificence; who sees no Body with whom he would change Condition; who values nothing in a Man, but what makes him a Man, his Soul; who submits himself to Nature, follows punctually its Directions, and lives according to its Prescriptions; whom no Violence can deprive of his domestick Peace; who turns Evil into Good; who is sure of his Judgment, immoveable, intrepid; who can be mov'd by Force, but not disturb'd, &c.*

But though the *Stoicks* boast of all these Things, they could never persuade prudent and discreet Men, that the whole human Felicity, so entirely consists in the outward Shew of a vain Virtue, as never to be disturb'd by Sickness, Poverty, and the other Incommodities of Life; for even true Virtue itself, which is very different from the vain Ostentation of the *Stoicks*, cannot be called *Beatitude*, but only the Way to it; since it cannot of itself, render a Man happy, but can only help him to acquire in Time, that sovereign Good to which he is naturally inclin'd.

St. *Augustine* reproves very well this extravagant Sentiment of the *Stoicks*, *Epist. 155. otherwise 52. num. 2. otherwise c. 1. in these Words: Unde in errorem absurdissimum lapsi sunt, ut cum asseverant etiam in Phalaridis tauro beatam esse sapientem, cogantur faceri vitam beatam aliquando esse fugiendam; exaggeratis enim malis corporis cedunt, atque in eorum molestiis gravissimis abscedendum ex hac vita esse discernunt. i. e. whence*

whence they are fallen in a very absurd Error, for while they maintain that a wise Man can be happy even in the Bull of *Phalaris*, they must be forced to confess, that a happy Life is sometimes to be avoided. For they are overcome by the great Number of Infirmities, and declare, that it is licite to accelerate their Death, to rid themselves of the greatest Calamities. And lower, *num. 3. O nimium superba jactantia! si beata vita est in cruciatibus corporis, cur non in eâ manet sapiens ut ruatur: si autem misera est, quid obsecro te, nisi Tiphus impedit ne, fateatur?* i. e. O too monstrously proud Ostentation! If the Felicity of this Life can be found in Torments, why should not the Wise remain in them, to enjoy it? But if on the contrary, such Life is miserable, what could hinder them from confessing it, but their Pride?

The *Peripateticians* are of Opinion, that *Felicity* is all that's good and perfect, so as to satisfy entirely a human Appetite. Hence they do not place it in the sole Pleasure with the *Epicureans*, nor in Virtue alone with the *Stoicks*, but that every Body should live according to Nature. To live according to Nature, is interpreted by *Piso*, *Vivere ex hominis naturâ undique perfectâ, & nihil requirente*, i. e. To live according to human Nature every Way perfect, and wanting nothing. In that Sense *Beatitude* is defined by *Aristotle*, chief of the *Peripateticians*, *lib. 1. Ethic. c. 6. Operatio animæ secundum virtutem, in vitâ undique perfectâ*. i. e. An Operation of the Soul, according to Virtue, in a Life every Way perfect.

It is call'd an *Operation*, not an *Habit* or *Faculty*; for which he gives this Reason, *c. 9. of the same Book*, That as in the Olympick Games, the most beautiful, or strongest, were not crowned, but those only who fought and conquered; likewise, those only who act justly and honestly, obtain the Crown of Felicity. But, however, this Reason seems only to prove, that the Acts of Virtue are only the Road to *Beatitude*, not the *Beatitude* itself: Which is rather a certain permanent *State*, as we have quoted it from *Boëtius*, than an Act, or Operation which soon passes; as we will shew hereafter. But as this Operation must be very excellent, *Aristotle* refers it to the Mind, not to the Body: But he is not pleas'd to tell us what, and which it is; though he says, that *it must be according to Virtue*, because *Virtue* is the most stable of all human Goods, which cannot be ravished from us in Spite of us, as are all external Goods, nor forgotten as Learning.

He adds, in a Life every Way perfect and wanting nothing; because there are several Things to be join'd to Virtue to acquire the *Beatitude*, which is a *State* perfect by the Aggregation of all Sorts of Goods.

And, First, There are required the internal Goods, either of the Mind, as Science, Prudence, &c. and of the Body, as Beauty, Health, Strength, without which no Body can every Way be happy; for if some of those Advantages be wanting, they are always wish'd for.

Secondly, The external Goods, or the Goods of Fortune, are likewise necessary; which Virtue uses as Instruments, or Assistants: Therefore Riches are wanted for Magnificence; Power, for the Accomplishment of Promises; Friends, for Authority and Esteem.

There are required besides Nobility, Glory; i. e. a fine Reputation; and even Praise and Honour, i. e. a Reputation sustain'd by noble Deeds; for Honour reflects rather on the Person who respects, than on the Person respected.

Lastly, All these Things must be perpetual; for as one Swallow does not make the Spring, says *Aristotle*, *Lib. 1. Ethic. c. 6.* neither can one Day make a Man happy.

This is the Sentiment of *Aristotle*, and of the *Peripateticians* on *Beatitude*. In which, however, he makes no mention of the sovereign Good, or of God. For though in the first Book of the *Ethicks*, *c. 10.* he considers *Beatitude* as a Gift from Heaven, he notwithstanding declares that it must be acquired by Stu-

dy and Practice; so that if a Man be indued with some human Virtues, and has besides, Friends, Honours, and Riches, he may be supposed to enjoy a Felicity, without God; which is contrary to Reason: I confess that the *Beatitude* mentioned by *Aristotle*, is imperfect; and such as he imagines can be enjoyed in this Life. For no Body is properly happy in this mortal Life, subject to so many Calamities: And if there could be any Felicity in it, it should rather be placed in the Tranquility of the Mind, and an agreeable Security, than in the Operation of the Soul.

But how could that Felicity be compatible; with that Multitude of Evils we are environed with, ever since *Adam's Sin*? Let's hear on that Subject, the Holy Ghost speaking in *Job*. *A Man*, says he, *xiv. i. that is born of a Woman, is of few Days and full of Trouble*. Neither can those Miseries be removed by those Commodities required by *Aristotle*, to render a Man happy; for if he be in Health, he is afraid of Diseases, if rich, full of Honours, and powerful, he is exposed to Jealousy and Envy; whence he is afraid of Assassins, Thieves, of Fire, and all that can hinder this Life from being secure and happy. *An tu potentem censes*, says *Boëtius*, *lib. 3. de consolat. Philosop. prof. 5. quem videas velle quod non possit efficere? Potentem censes, qui satellite latus ambit qui quos terret, ipse plus metuit*, i. e. Can you imagine that Man powerful, whom you see wanting what he cannot accomplish? Can you imagine him powerful who is environed with Satellites? and who is more afraid of those he keeps in Awe than they are afraid of him. And lower, speaking of Friends, *an præsidio sunt amici, quos non virtus, sed fortuna conciliat? sed quem felicitas amicum facit infortunium facit inimicum?* i. e. What Dependance can we have on Friends who are the Proselytes of Fortune, not of Virtue? But whom Felicity has made Friends, Misfortune makes Enemies. And having thus considered all the different created Goods, which are too imperfect to satisfy our Mind, he concludes at last *Prof. 10.* that there is no true Felicity to be expected in this Life, but only in the other, where our Mind will be satiated with God.

If it is so, *Aristotle* had no Reason to reprove *Solon*, *lib. 1. Ethic. xi.* for being of Opinion, that no Man could be happy but after his Death; and for denying the Felicity of *Cræsus*, though loaded with Riches and Glory. In fact it is certain, that those who are considered as the most happy in this Life, are always to fear the Inconstancy of Fortune: For where there is Fear, there is no Security, no Tranquility of Mind, which are all requisite for a true Felicity: Therefore,

ultima semper
Exspectanda dies hominis dicique beatus
Ante obitum nemo, suprema quæ funera debet.

Among the Pagan Philosophers, none have approached nearer the Truth than the *Platonicians*, whence *St. Augustin*, *lib. 10. de civit. Dei, c. 29.* speaks to them thus, *Videtur utique, etsi de longinquo, etsi acie caligante, patriam in quâ manendum est, sed viam quâ eundem est, non tenetis*, i. e. You see however, though afar off, though a Multitude darken the Sight, the Country, where we are to settle, but do not follow the Way which leads to it. *St. Augustin* meant here, by *Way*, the Incarnation of the Son of God, whereby we are saved.

For *Plato* (tho' he seems to believe that there is a certain Felicity in this Life, enjoyed by God's Friends, who exercise themselves in all the moral Virtues, and speculative Disciplines, and especially Arithmetick) teaches, notwithstanding, that there is no solid and true Felicity but in the other Life. Therefore he affirms, *That all those who depart this Life appear before a just Judge, from whom they hear an irrevocable Sentence; whence if the Souls, while they have been incarcerated in their Bodies, have resisted the Cupidities, and cleaved to God by Wisdom and Virtue; he believes, that they can entertain a great Hope at the Point of Death, that they are to receive the Reward due to their*

Virtue,

Virtue; and be ravished from these transitory Mansions, to everlasting ones of Glory; where they are to enjoy, to all Eternity, an unalterable and sovereign Good. But if they have abandoned themselves to the captious Charms of this World, and have neglected to pray the supreme Being, to correct their Errors and Vices, they are to be dragged by those Devils, who have been Companions or Guardians of their criminal Life, into a Place of Torments, where they are to be punished for their Crimes. So that if they can expiate them, they are, after they have been purged, to obtain the Reward of their Virtues; but if their Crimes cannot be washed away, they are to be condemned to eternal Torments.

But however *Plato* has erred, in that he imagined, that the Souls were shut up in Bodies, as in Prisons, for certain Crimes they had committed in their former Life. But all the rest he has wrote of Beatitude, except that he has not known the right Way which leads to it, viz. the divine Mediator, is very little different from the Christian Truth. For with the Christians he has placed Man's Felicity in God alone; which is the Reason why the antient Fathers have all very much recommended the Philosophy of *Plato*. Let every Body be silent, says *St. Augustin*, lib. 8. de civit. Dei, c. 8. before those Philosophers who have not said that that Man was happy who possessed his Body, or his Mind, but who enjoys God; not as he enjoys his Body or his Mind, or as a Friend, his Friend, but as the Eye enjoys Light.

For *Plato* in *Phædone*, and *Thææteto*, affirms, that the sovereign Good of the Soul is God's Similitude; and that no Body can become like that divine Sun, unless he be irradiated with some Infusion of his Light; and consequently that the sovereign Good of the Soul consists in the Contemplation of God, or in the Union of the human Kind with the divine Light. And if we believe *Plato*, this Good possesses first the Mind, and from thence descends in the Will.

Aristotle is offended at *Plato's* calling the Idea, or Contemplation of the sovereign Good, the human Felicity; and on that Account pursues him (tho' *Plato* had been his Master) Lib. 1. *Ethic.* c. 4. after he had declared, that *Plato* was his Friend, but much more the Truth. And he argues with him, as if *Plato* had understood nothing else by the Idea of Good, than that Notion of Good call'd transcendent, and ideal; when as he had rather design'd thereby the Contemplation of Good in its Essence, or the Vision of God Face to Face: As it can be plainly seen throughout his whole Book, *Of the Republick*.

From this Sentiment of *Plato*, of God and of the human Felicity, we'll pass to what the Christian Faith teaches us of a Supernatural Beatitude.

If it be impossible that the human Felicity should consist in created Goods, i. e. in the external ones of Fortune, viz. in Riches, Honours, Dignities, &c. or in those of the Body, as Health, Beauty, Strength; or in those of the Mind, viz. Science and Virtue; since all those Sorts of Goods are imperfect; and ordered towards one far more excellent; it must be said with *St. Augustin*, the last Book, *De civit. Dei*, the last Chapter, That he who has given the Virtue, is to be the Reward of Virtue; since he can give nothing better, and greater than himself: What else could he have said by his Prophet, I'll be their God, and they'll be my People; but that I'll be all that they can desire, their Life, Salvation, Honour, Glory, their Peace, and all Sorts of Goods?

This Felicity is justly call'd supernatural, because it cannot be obtained by our natural Strength, but only by the Assistance of God's Grace: It can notwithstanding be call'd natural, if by the Name natural, we understand what becomes a Man according to Nature. For we have heretofore shewn, that God was in Fact, the last, natural, and physical End of all Things; because all Things have been created for him. But he may be call'd, in a more particular Manner, the last natural End of Man; because human Nature is so filled with him alone, that it cannot be satiated with any Thing else: Therefore there is no other objective Beatitude, as they call it, or no other

Object of human Felicity, but God himself; to whom while we are intimately united, we are render'd happy.

Besides this objective Beatitude, which consists in the Object which renders us happy, there is another call'd formal; on which the Schools are much divided. This formal Beatitude is the Manner whereby a created Soul is rendered happy in the Possession, and Presence of the sovereign Good: Or, it is the State of the Soul, reposing herself in the sovereign Good, which she sees and loves: Or, a sweet Conjunction of the Soul, with God present and possessed. Because whoever possesses God is happy: Therefore the formal Felicity is better defined the Possession of the sovereign Good.

The *Tomists* place the Essence of this Beatitude in the intuitive Vision of God. The *Scotists* in the fruitive Love. And several, in the Joy arising from the Contemplation of God.

They call intuitive Vision, that whereby we see an Object present, and Face to Face: And fruitive Love, that whereby we are united to the sovereign Good, present and possessed, as to our chief End. And, lastly, a beatifick Joy, the perfect and pleasing Sense a created Mind is affected with in a Re-union with the sovereign Good, so as to desire nothing more; but should repose in it as in a vast Ocean of Pleasures. That Joy the Blessed are inebriated with, in the Presence and Possession of God, is call'd primary, and beatifick; but there is another Sort of Joy, secondary and accessory, which is only an Appendix of Felicity; whereby the Blessed rejoice in their Beatitude.

Therefore the intuitive Vision, which wants an Object present, differs from the Vision, which they call ideal or abstractive; whereby an absent Object is only represented by the Idea. The *Peripateticians* imagine this Idea to be commonly abstracted from Things, though the Idea of God, and all other innate Ideas, are not abstracted from Things, as we'll shew hereafter: Whence it should be better call'd an imperfect and ideal Knowledge, than abstractive.

There are three Degrees of Knowledge within us; or God infuses three Kinds of Light into our Minds: First, the Light of Nature; whereby we naturally know God himself, and several other Things. Secondly, the Light of Grace, or of Faith by *Jesus Christ*, whereby the divine Mysteries are manifested to us; as the Trinity of the divine Persons, in Unity of Nature; the Incarnation of the Word, &c. and, Thirdly, the Light of Glory, whereby God lets himself be seen by the Blessed, in his Glory. Of the first Sort of Light the Royal Prophet speaks, *Psal.* iv. 7. The Light of thy Face hath shined upon us, O Lord. *Simon* mentions the second, *Luk.* ii. 32. in these Words, A Light to lighten the Gentiles. And of the Third, is commonly understood the 10th Verse of the *Psal.* In thy Light we shall see Light.

To these three Sorts of Lights answer three Sorts of Love, viz. a natural Love; or the natural Inclination we have towards our sovereign Good. A supernatural Love, or Charity, which the Holy Ghost, through *Christ*, infuses within us; that despising all terrestrial Things, we should have no Taste but for what is in Heaven. Lastly, a Love of Fruition; whereby the Blessed are perfectly united to God, as to their sovereign Good; and who inebriates them with an inconceivable Pleasure. The Love wherewith we love God, either naturally or supernaturally, is only a Love of Desire, which does not render us really happy but only in Hope. The Love of Adhesion, or Fruition, is call'd the Love Patriæ; whereby the Blessed are intimately united to God.

Therefore the Blessed shall see God, love him, and be delighted in him: But it is much disputed, whether the Vision, or the Love, or the Joy, expresses the Essence of Felicity.

For my Part I am of Opinion, that the formal Beatitude consists in the Joy resulting from the Vision and Love of God: Since the formal Beatitude is the State of a created Soul, whereby she reposes with Delight and Pleasure, and entirely satisfy'd, in her sovereign

vereign Good; seen and beloved, as in her last End: Which State, or Condition, of a created Soul, is a true and perfect Joy; which God, whom she sees and possesses as her sovereign Good, inebriates her with. For the Joy or Pleasure of the Soul is nothing else but that intimate, and exquisitely agreeable Sense she is affected with in the Presence and Possession of some Good: Whence, if it be the sovereign Good, the pleasure or Joy will be entirely perfect and compleat; such as that of the Blessed, who desire nothing more, but repose themselves in the sovereign Good. Therefore a *formal Beatitude* consists in a sovereign Joy, Pleasure, or Delectation.

Having thus discovered what was the sovereign Good, and what that End towards which all our Actions have a Tendency, we must consider at present, those human Acts, such as they are to be directed by Rules of *Ethicks*, towards that End.

Therefore we must search first, what is a human Act, and how many. Secondly, if all human Acts be voluntary. Thirdly, if it be free. Fourthly, if all human Acts be good or bad, and none indifferent. Fifthly, which is the Usage of the Affections of the Soul, and if they be subject to the Rules of the *Ethicks*.

I call, with St. Thomas, 1, 2. *quest.* 1. *art.* 1. a human Act that which is done by a Man, acting like a Man; *i. e.* with Prudence and Reflection; that a human Act may be distinguished from that called the Act of a Man, and which is done without the least Reflection.

Of those *human Acts*, some are interiors, commonly called *elicit*, or gained; and the other exteriors, called *imperati*, or commanded.

The *interior Acts*, are those which are gain'd from the Will, and are accomplished in it; as the Acts of Love and Hatred.

The *exterior Acts*, are commanded from the Will, but are executed by our corporeal Strength, as Walking, Speaking, Writing, &c. and even of these Acts several are called transitory, because they pass from the active Cause, to a foreign Object, as Writing, Striking, Building, &c. Others are called *immanent*, because they produce nothing sensible beyond the active Cause, as shaking the Head, the Motion of the Arm, rubbing the Eye, &c. But however, those are more properly called *immanent Acts*, which remain in the Mind, as Love and Hatred.

To find the Number of the interior Acts, every one must be attentive to what passes within him.

For first, we irresistibly desire *Good* in general, or our Beatitude, and avoid Evil or Misery; whence the first Act of our Will, is the *Love of Good* in general, or of our Felicity, and a Hatred for Evil or Misery. Therefore *Good* in general, or our Felicity, if it be considered as it is convenient to us, is very well term'd, the primary Object of our Will. But if it be considered as it fixes and terminates our Desires, it is called the last End. Lastly, if it be consider'd as rendering us happy by its Possession, it is called our Felicity.

Secondly, that we may gain the *Good* and avoid the *Bad*, there are Means to be taken, therefore the second Act of our Will is *Consultation*, or an Enquiry into the Means to conduct us to our End.

Thirdly, after that *Consultation*, we chuse one of those Means, and thus the third Act of our Will is *Election*, which is not ill defin'd, the Assumption of one Means before another, in order to gain our End.

Fourthly, where through that Means we have gain'd our End, we repose ourselves in it and enjoy it, especially if nothing remains to be desired; whence the last Act of our Will is *Fruition*. But if by Misfortune, any Body was conducted to a bad End, he would complain and grieve at it, especially if he could not extricate himself from it.

St. Thomas has very near followed this Order, for he reckons six *illicit*, or interior Acts of our Will, three whereof regard the End, *viz.* Will itself, or as they use to speak, *Volition*, *Intention*, and *Fruition*;

and three the Means to obtain that End, *viz.* *Consent*, *Election*, and *Use*.

They call Means all those Things which are conducive towards obtaining the End, as Pharmacy is towards recovering Health.

Volition is defin'd in the Schools, a simple Love of the End, without the least Regard to the Means conducive to that End. Therefore it is sometimes called *Velleity*, because imperfect Desires are often express'd, by the Imperfect Tense of the Optative Mood; as an idle and indolent Man often expresses himself thus, O! I would grow learned, or rich; but mean while, he hates Labour and Study, which are the Means conducive to Learning and Riches. But a laborious and diligent Man, speaks always in the Indicative Mood; *viz.* I will grow learned, I will grow rich, &c. and presently applies himself to Work and Study; which is very well express'd by Solomon in these Words, *Prov. xiii. 4. The Soul of the Sluggard desires and has nothing; but the Soul of the Diligent shall be made fat.*

Intention is term'd, the Act of the Will whereby we tend to our End through certain Means. Though those Means are not determined till the Accession of the Election.

Lastly, *Fruition* is an Act of the Will, cleaving to the Good possessed, as to the last and sovereign Good; for according to St. Augustin, *Lib. 1. de Doctrin. Christ. c. 4.* to enjoy, is to be tied by Love to something for the Sake of that Thing alone. Whence it is understood, that *Fruition*, properly so called, is not of the Means, but of the last End. As the Master of the Sentences teaches it, from St. Augustin, *Lib. 1. distinct. 1.* he believes that all the human Malice, consists in these two Things, *viz.* to enjoy Things which are only to be used, and to use Things which are to be enjoyed; or to enjoy the Creatures, which are only profitable Goods, and ordain'd to arrive at the Possession of God; and make Use of God as a Means to arrive at something, while he alone can fix our Desires, and bless us with a perfect and indelible Joy. These are the Acts of the Will, which regard the End, according to St. Thomas.

Those which regard the Means, are, *Consent*, *Election*, and *Use*, which are said to be preceded by *Consultation*, or *Deliberation*, commonly attributed to the sole Understanding, but falsely.

Therefore *Consent*, according to that Doctrine; is commonly defin'd an Act of the Will consenting to the Understanding, which judges, after a mature Deliberation, that one Means is more convenient than another.

But as neither Judgment, nor, consequently, Deliberation, pertains to the Understanding alone, as I'll shew in the Metaphysick, we must define Consent in some other Manner, where we'll explain what is Deliberation, Consultation, or Council.

Deliberation, or *Consultation*, is an Enquiry into the Means, which pertains both to the Understanding and Will; to the Understanding because it conceives those Means, and to the Will because in examining them, it judges if this is preferable to that.

Consent seems to be nothing else but an Act of the Will, from the previous Perception of the Understanding, approving one Means rather than another.

Election, or the Assumption of one Means before the other, differs very little from the Consent.

Use is an Act of the Will, whereby it makes Use of the corporeal Powers subject to it; and applies them to the Means in order to gain the End propos'd.

We have called *Acts commanded*, those which are commanded by the Will, and performed by the other Faculties; which Definition has been the Occasion of several *Queries* in the Schools, and is of too much Consequence to be passed by in Silence.

It is asked first, what is commanded, and which Faculty it belongs to? I answer, in the Canonist's Dialect, that Command is an Act of something superior, intimating something, *i. e.* denouncing something, or inculcating it in the Mind, and compelling it to perform

form it. Therefore it includes the Understanding and Will. The Understanding, because what is intimated, must penetrate the inmost Recess of the Mind to be understood; and the Will, because Impulsion is an Act of the Will, not of the Understanding; and as *Command* consists particularly in that Authority, and Impulsion; hence it seems that it ought to be attributed to the Will, especially in this Place where it is nothing else but an *Act of the Will, moving and directing the inferior Powers*, i. e. the Organs of the Senses, which the Creator has subjected to it. Though St. Thomas, 1, 2. *quest.* 17. *art.* 1. seems to differ a little from this Sentiment, where he says, that *Command* is an Act of our Reason, not of our Will. But all others define *Command* by an Act of the Will, whence this Distich:

Sic volo, sic jubeo, sit pro ratione voluntas.

They ask, secondly, if the Will moves the Understanding, and be moved by the Understanding in its Turn?

St. Thomas answers, 1, 2. *quest.* 9. *art.* 1. that the Intellect is mov'd by the Will as to the Practice of the Act, i. e. as to acting, or not acting; but that the Will is mov'd by the Intellect, as to the Species of the Act, i. e. to act this or that.

But however, the Intellect is not always mov'd by the Will in the Perception, as to the Practice of the Act; either because the Perception is not an Action, but a passive Affection, or a Modification of the Understanding; or because Ideas or Perceptions, are often excited in our Understanding against our Inclination; though sometimes the Will directs the Understanding towards its Perceptions; and in that Sense can be said to move the Understanding; but it is better to say that the Mind moves itself towards the Understanding.

They ask, thirdly, if the Will commands the Motions of the sensitive Appetite?

St. Thomas answers, 1, 2. *quest.* 17. *art.* 7. that the Will governs the sensitive Appetite, with a *political*, not a despotical Empire. For he distinguishes two Sorts of Powers, viz. a *despotick* one, which is irresistible, such as the Power of a Master over his Servants; and a *political* or civil one, which is less rigid; as that of a King or Prince over his Subjects. Which Distinction he borrows from Aristotle, *Lib.* 1. *politic.* c. 5. Afterwards he considers in the sensitive Appetite, either the *Quality*, or *Disposition of the Body*, which consists in the Motion of the animal Spirits, or the rational Soul itself, which on Occasion of that Motion, is determinated to love the sensible Good, or to avoid Evil.

Therefore it is with a very great Appearance of Reason, that the Will is said to have a political Empire, or Power on the various Motions of the sensitive Appetite; in as much as it can, in some Measure, moderate those Motions, if it be very attentive to those Things which give Occasion to the other Motions. But notwithstanding, it does not govern those Motions with a despotick Power. Neither can it be an exceptionable Obstacle to their being excited in the Organs of the Body, either from the Disposition of the Body, or the various Occasion of the Objects. Though our Will, can even now after the Fall of the human Nature, refuse to obey the Motions of the sensitive Appetite, though they be excited within us against our Will. In the State of Innocence, all the Motions of the Body were entirely subject to Reason.

They ask, fourthly, if the Will commands the internal Senses, viz. the Force of Imagination and Memory?

I answer, that it does not command them, because several Species or Representations, are excited within us against our Will; neither can we remember, or forget several Things when we please.

They ask, fifthly, if the Will commands the external Senses, and the motrice Faculty?

I answer, that it commands the external Senses, as far as it can have any Ascendancy over their Organs, while they are sound, v. g. it can close or open the Eyes at Pleasure; but if the Eyes or Ears be opened, it cannot hinder the Light, Colours, or the Sun, from being made sensible to us.

Likewise it commands the motrice Faculty in those Motions, which are called voluntary, such as the Motion of the Arms, Feet, &c. but it does not command those which are necessary, such as the Motion of the Heart, and Arteries. It is true that none but voluntary Motions are esteemed human Acts.

From this I'll proceed to examine if all Sorts of human Acts are voluntary.

That is said to be voluntary, which proceeds from the Will as spontaneous, which is done freely and without any Coaction. The spontaneous and voluntary, differ among them, in that every voluntary Act is spontaneous, but every spontaneous Act is not voluntary. For the spontaneous is also attributed to Beasts, and Things inanimate; for a Horse runs to Water spontaneously, and Water is said to flow spontaneously; but voluntary becomes only rational Beings.

But however, Aristotle has confin'd spontaneous to that only which is voluntary, whence he has defin'd it, *Lib.* 3. *Ethic.* c. 3. that which is done from an intrinsic Principle, knowing every Thing relating to the Action, i. e. which is done by the Will, which is intrinsic to the rational Agent, viz. Man; and which is the same Thing with the Mind itself, which knows all the Things in which the Action consists, or which knows the Object, End, and Circumstances of the Action.

The Object of the Action, is that towards which the Action tends. The End, that for which the Action is done. And, the Circumstances, are all those Things which accompany the Action, as I'll explain hereafter.

Voluntary, could be defin'd more concisely, that which is done with the Understanding, Knowledge, and the Will's Consent. For there are two Things diametrically opposite to voluntary, viz. Force or Coaction, and Ignorance. Force is defin'd by the *Juriconsultus*, Paul, *Leg.* 2. *digest.* *Titul.* quod motus causa, &c. the Impetuosity of a very great Thing which cannot be repelled; to which it should be added, and contrary to the Propensity of the Will: And Ignorance is an Absence of Knowledge. Hence it follows, that involuntary is very well defin'd by Aristotle, *Lib.* 3. *Ethic.* c. 1. that which is done either by Force or Ignorance. I'll say then with Aristotle, that Force or Violence, is an insuperable Obstacle to what's called voluntary: Or that all Things done by Force are involuntary, because we call voluntary what is done spontaneously, and with the Propensity of the Will, which is not the Case of Things done by Force, v. g. when any Body is put in Prison, he is not supposed to enter it spontaneously, but on the contrary, does it against his Will. But as there are two Kinds of Acts of the Will (as heretofore observed) viz. interior and proper Acts, called *elliciti*, as Love and Hatred; and exterior or commanded Acts, as Ambulation, Locution, &c. we must examine which of them can be properly Force, or subject to an external Violence.

The Will cannot be forced with regard to interior and proper Acts, because those Acts are done with the Propensity of the Will; since that is Violence which is done against the Inclination of the Will. For Love, for Instance, cannot be against the Will's Inclination. For if Violence could be done to the Will, it would be willing and unwilling at one and the same Time. It would be willing from an Hypothesis, and unwilling because it would be repugnant to itself, which is absurd. Therefore the Will cannot be forced with regard to interior and proper Acts.

If it be objected that God is more potent than the Will, and therefore can force it, even with regard to interior Acts; I'll answer, that though God be more powerful than our Will, he notwithstanding, cannot force it; but only can change it, and make it

it willing of unwilling it was before. For as we have observed already, to force the Will with Regard to interior and proper Acts, is to move it against its own Inclination; so that it would be willing unwilling, which implies a Contradiction. Therefore God changes the Will by his Grace, but not forces it.

The same cannot be said of the *exterior* or commanded Acts with Regard to which the Will can be violated; because those Acts are commanded by the Will, and are practis'd by the corporeal Faculties, which can be forced. For a Person can stop the Arm of another against his Will.

Fear, is very near to Coaction, which *Fear*, is a *Trepidation of the Mind, caused by a present or future Danger*. The Distinction of *Fear* into a violent or slight *Fear*, must be taken from the Genius of the Person frightened. But however, the *Fear* of Death, of Mutilation, and the like, is always great. Therefore:

Every Thing done through a great *Fear*, is (according to *Aristotle*, *lib. 3. Ethic. c. 1.*) absolutely and in itself involuntary, because the Will is repugnant to it: Such is the Act of a Person who delivers his Purse to a Thief, because threaten'd with Death if he refuses. Whence all that's contracted through a great *Fear*, the Laws declare it void.

But, notwithstanding, if Things done through *Fear* are consider'd respectively to a greater Evil, either real or apparent, which they desire to avoid, they must be accounted voluntary, according to *Aristotle's* Opinion, *Lib. 3. Ethic. c. 1.* since they proceed from the Will with a Knowledge of all the Things relating to the Action; *e. g.* when the Captain of a Ship, during a Tempest, thro' *Fear* of the imminent Danger, to avoid Death, and save his Life, throws Part of the Cargo into the Sea, his Act is voluntary, tho' acted through *Fear*, because his Will is determined to that *Yet*, and knows all the Circumstances of that Action.

If I be asked the Difference between acting *through Fear*, and acting *with Fear*? I'll answer, that he acts *through Fear*, who, without it, had not acted in that Manner: And he acts *with Fear*, whose Action is accompanied with *Fear*, but is not the Cause thereof: Thus, a Thief robs *with Fear*, not *through Fear*; for if there was no *Fear*, he would still be more willing to rob: So that nothing hinders the Acts done *with Fear* from being voluntary.

We must, at present, inform ourselves what is *Ignorance*; how many Sorts of *Ignorance*; and which is the *Ignorance* which hinders an Action from being voluntary.

Ignorance, in general, is the *Absence*, or *Want of Knowledge*; which if join'd with some Error, is call'd *Ignorance of a depraved Disposition*, or *depraved Habit*; because Error is a depraved Disposition of the Mind, or depraved Habit: But if it be not joined with Error, then it is either the *Ignorance of a Thing*, which a Man by the Condition of his Nature is not obliged to know; *v. g.* how great is the Circumference of the Globe; which *Ignorance* is call'd of *pure Negation*; because God has been pleased to refuse to our Nature the Science opposite to that *Ignorance*: Or, it is the *Ignorance of a Thing* we are obliged to know; and is call'd *Ignorance of Privation*, or *Privation of that Knowledge* we should acquire.

This *Ignorance* can be consider'd, or with Regard to the Person who is ignorant, or to the Thing he is ignorant of; or lastly, with respect to the Action, which is done through *Ignorance*.

If it be consider'd with respect to the Person who is ignorant, the *Ignorance* is either *vincible*, or *superable*; or *invincible*, or *insuperable*.

A *vincible Ignorance*, is that which can be conquered by a moral Care, or Diligence. And of this there are two Sorts; for it is either affected, as when any Body pretends to be ignorant of something, *viz.* some Precept, that he may have a more plausible Pretence to transgress it: Or, it is *gross* and *idle*; as when Somebody delights in such a Manner in his

Ignorance, as to despise or neglect all Means to conquer it; but however of what Kind this *vincible Ignorance* may be, it never deprives us of our Liberty; and therefore cannot excuse us from Sin.

The *invincible* or *insuperable Ignorance*, is that which with all the Care and Precautions imaginable cannot be conquered, and therefore is free from Sin: But it cannot be admitted with Regard to the Precepts of the Law of Nature, as I'll shew hereafter.

But if we consider *Ignorance* with Respect to the Thing we are ignorant of; one is of *Right*, whereby the right itself, or the Thing which should be known, is not; as if one was ignorant of the Dogma's of his Religion, or of the Laws of his Country; and the other of *Fact*, whereby we are ignorant of some Fact; as if Somebody was to know, that the *Romans* made use of Codicils, for want of a Testament, but was ignorant that it was introduced by the Authority of the Emperor *Augustus*, as it appears from the last Title of the Second Book of the Institutions of the *Roman Civil Law*.

Lastly, if *Ignorance* be consider'd with Regard to the Action; one is *antecedent*, another *concomitant*, and the other *subsequent*.

The *antecedent Ignorance*, is that which precedes the Determination of the Will, and which taken off, there would be no Action; or is a Condition, without which one would not act: As when, *Ovid. Metamorp. lib. 7. Cephalus* kill'd his Wife *Procris*, hidden in a Bush, thinking it was a wild Beast; that *Ignorance* was *antecedent*, and a Condition without which he had not kill'd her: If such *Ignorance* cannot be conquered, it hinders the Action from being voluntary.

The *concomitant Ignorance*, is that which accompanies the Action, but is not the Cause or Occasion thereof: As if one was to kill, in Hunting, a capital Enemy, whose Death he is determined upon, mistaking him for a wild Beast; this *Ignorance* accompanies the Action, but is not the Cause thereof: This *Ignorance* neither hinders, nor makes the Action voluntary.

First, it does not make it voluntary, because a voluntary Action must be done with Knowledge; it does not hinder it from being voluntary, because even with the Knowledge, the Action would be done; as it appears in the Example of the Person killing his Enemy, mistaking him for a wild Beast; whom if he had even known, he had not abstained from Killing: Whence those Actions are neither call'd *voluntary*, nor *involuntary*, but *not voluntary*; and are not done thro' *Ignorance*, but with *Ignorance*.

Lastly, *subsequent Ignorance*, is that which follows either the *explicit* or *implicit* Determination of the Will; or directly or indirectly what one pleases; *v. g.* It might happen that one would be ignorant of the Day appointed for a Fast, that he may indulge his Gluttony: This is properly an affected *Ignorance*, which far from excusing Sin, increases it; therefore does not take off the voluntary.

The *Concupiscence* has a great Affinity with *Ignorance*, because it darkens the Understanding, disturbs the Reason, and is a great Obstacle to its discovering the Truth. Whence we must examine, if, and in what Manner, it can hinder an Action from being voluntary; which to do with a greater Facility, we must observe, First, that by *Concupiscence* is understood either the vitiated human Nature, *i. e.* our innate Propensity to Evil, which is call'd by the Theologians, *Sensuality*, the *Law of the Flesh*, the *Source of Sins*, &c. or for the Act itself, or the Motion of the sensitive Appetite, or of that Part of the Flesh which rebels against the Spirit; which last Acceptation is the most proper for this Place: For ever since *Adam's Sin*, we have found the Motions of the Flesh have revolted against the Will; and in Punishment of that Revolt of the human Will, have always grown stronger and stronger, in a Will which does not obey the divine Laws.

Secondly, That *Concupiscence*, taken in this last Sense, ought to be consider'd in two different Manners,

ners, *viz.* either as it proceeds, or follows the Act or Consent of the Will.

The Concupiscence precedes the Consent of the Will, when the Motion of the animal Spirits is excited in the Organs, by the sole Affection of the Body, or the Presence of Objects, either without the Concurrence of the Will, or against its Inclination: But the Concupiscence follows the Act or Motion of the Will, when the Will gives Occasion to it: Therefore, if the Concupiscence follows the Act of the Will, it certainly is voluntary; and even what's acted in Consequence thereof, is ranked among the Sins of pure Malice; because the Will is not then overcome by the Concupiscence, but rather provokes and solicits the Concupiscence.

The sole Doubt remaining, on this Subject, is with Regard to the *antecedent Concupiscence*; which to resolve, I'll say that even this Sort of Concupiscence, which precedes the Will's Consent, does not take off the *voluntary*; because it neither deprives us entirely our Will of its Propensity, nor our Understanding of its Knowledge; on the contrary, the Will has rather a greater Propensity towards the Object, when it acts through Concupiscence; neither is the Understanding then obstructed in the Perception of all the Things which relate to the Action: Therefore, even the antecedent Concupiscence does not take off the voluntary; but rather, with Regard to the Propensity, seems to increase it; though with Regard to the Cognizance or Knowledge, it weakens it.

It may be objected, that the Consent of the Will is depraved by the antecedent Concupiscence; and that, consequently, it takes off the Will. I answer, That tho' it depraves the Consent of the Will, it does not deprive it of the Power of resisting it; and consequently cannot take off the voluntary. For as the Apostle St. James says in his catholick Epistle, Chap. i. 15. *When Lust hath conceived, it bringeth forth Sin; and Sin when it is finished, bringeth forth Death.* And as all Sins are voluntary, the Concupiscence instead of taking off the voluntary, produces it. The Reason of this, is, that tho' Concupiscence precedes the Will's Consent, the Will has always the Power to resist it; though it very often makes no Use of that Power.

It may be objected farther, that what is done thro' the *antecedent Concupiscence*, being done against the Inclination of the Will, as it appears in those commonly call'd *infirm*, and incontinent, who indulge their Passions but with a certain Repugnance, it cannot be said to be done voluntarily.

I answer, that those Acts are in Fact involuntary, if they be done against the absolute Inclination of the Will; but not if done with a weak Reluctancy, which the Theologians call *Velleity*; therefore they call, after Aristotle, lib. 7. *Ethic. c. 1. incontinent*, a Person who still finds some Repugnance, in committing a Sin, in which he differs from a *Reprobate*, who sins without the least Repugnance, as I'll explain it hereafter. But notwithstanding, this Resistance of the *infirm*, or *incontinent*, does not so much proceed from the bad Action itself, as from the Effect which follows the bad Action; for the Pain displeases not the Action, done through a great Propensity of the Will. Hence Aristotle, lib. 3. *Ethic. c. 3.* considers as ridiculous the Excuse of a Person, who pretends to have committed a Crime against his Will, as having been forced to it thro' Lust, or Delectation; but teaches, in the first Chapter of the same Book, that the Excuse of that Person ought to be received, who has neglected his Duty, by Reason of some very great Incommodity.

But however, I would not refuse to confess that the Force of the *antecedent Concupiscence* is sometimes so strong as to almost darken entirely the Understanding, in which Case the Voluntary is weakened, and he may be excused. As when a Person is beaten or irritated, abandons himself to Wrath, and thirsts for Revenge against him by whom he has been insulted, his Sin is less, than if he had beat another without the least Provocation. Whence the Motions which we commonly

call *Primo-primi*, are esteemed involuntary by the Theologians.

Theologians distinguish two Kinds of first Motions of the Concupiscence, *viz.* *Primo-primi*, and *Secundo-primi*.

The Motions *Primo-primi*, are those which precede the Consent of the Will in such a Manner, that they rather seem to proceed from the Mechanism of the Body, than from our Reason; such is the Motion of a Person, who being stricken behind and unexpected by another, fly at him, without taking Time to consider if the Person he flies at, be his Father, Mother, Friends, &c. Motions of this Kind are not voluntary.

The Motion *Secundo-primi*, are those which precede the plain and perfect Consent of the Will; but not that Consent begun, or as they call it, *Semi-plenum*. Such is the Motion of a Person who having lost a Cause, insults the Judges, though he knows at the same Time, that he will want their Favour in some other Occasion. These Motions do not take off entirely the Voluntary, but only weaken it.

From all this, it appears, that all human Acts, *i. e.* acted by a Man in a human Manner, are always voluntary, unless Violence, or a great Fear, or an insuperable Ignorance, interferes.

The next Thing we are to consider, is, if all human Acts be free.

We call a free Act, that which is done without Compulsion, or can be done or omitted, at Pleasure. For the Theologians distinguish two Sorts of Liberty, *viz.* Liberty from an *external Necessity*, or *Coaction*, and Liberty from an *intrinsic or natural Necessity*.

Theologians call *Liberty from Coaction*, or *Liberty of Spontaneity*, is that which removes all external Violence, *i. e.* proceeding from an external Principle against the Propensity of the Will. By which Liberty the Will loves Good in general, and hates Evil in general; and therewith the Blessed are said to love God, because they freely, and without Constraint, adhere to him by Love. Therefore Liberty from *Coaction* is the same as voluntary or spontaneous; inasmuch as it is done by the Will without Coaction; and therefore all *voluntary Acts* are *free from Coaction*.

Liberty from Necessity, or *Liberty of Election* and *Indifference*, which is also called *Free-Will* and *Simple Liberty*, is that which excludes all Kinds of Necessity, either natural or internal, or external, or of Coaction. I call *natural Necessity*, a certain Determination or Propensity, which our Liberty has naturally to pursue or avoid necessarily, certain Things; *v. g.* to love necessarily, and by Election, Good in general, and hate Evil. I call likewise *Necessity of Coaction*, or *Coaction itself*, a certain Violence offered to some Body against his own Inclination; as when any Body is put in Prison.

Therefore the *Coaction* differs from a *natural Necessity*, in that Coaction proceeds from an intrinsic Principle, against the Inclination of the Will, and therefore deprives us of our Liberty. And the *Necessity of natural Inclination*, proceeds from the Will itself; and therefore does not deprive us of our Will, but only of our Liberty, taken in a strict Sense, which proceeds from Election.

That if the Necessity of acting or not acting be only hypothetical, and follows the Consent or Election of the Will, it by no Means affects our Free-Will, or *Liberty of Indifference* and *Election*: *v. g.* Suppose I have determined myself to speak, I speak necessarily: But that Necessity does not force me to speak, nor hinders me from speaking: Whence a Free-Will remains in me still, since I have still the Power of Election, which consists in this, that one may act, or abstain from acting as he pleases.

Therefore *Liberty of Election*, is very well defined by St. Thomas 1. part. *quest.* 83. *art.* 4. an *elective Faculty*, *i. e.* a Faculty to chuse one Thing before another: And as in Election, one is to act or not act; and the other, to act this or that, in this or that Manner; we distinguish two Sorts of Liberty of Election and Indifference; one to act or not act, call'd *Liberty of Contradiction*, because acting or not acting are Contradictories;

dictories; and the other to act this or that, in this or that Manner, *v. g.* to love or to hate, to speak or to write, which is called Liberty of *Contrariety*, or *Diversity*; because to *love* and to *hate*, are contrary or opposite; and to *speak* and to *write*, are different.

Free Will, can also be defin'd a Faculty determining itself; or, with all the Theologians, a *Faculty which having all Things requisite to act, can act, or not act, or even act the contrary*; whence it may be inferr'd, that the Liberty of the Will does not regard generally the chief End of our Actions, or our Felicity, because it is impossible we should not desire our Felicity. Neither does it tend towards those Things which have a necessary Connection with our sovereign Good, and without which we cannot gain that sovereign Good; such as are *to be*, and *live*, since we are necessitated to love those Things. What I have said of those Things which have a necessary Connection with the sovereign Good, may likewise be understood of those which have a necessary Connection with the sovereign Truth, such as the common Actions, or Propositions, the Attribute whereof is clearly and distinctly contain'd in the Idea of the Subject. For our Will must give its Assent to those Things.

Therefore it remains, that our Liberty teaches only those Things which are Means to obtain the End, though they have not a necessary Connection with it; or which can appear sometimes good, and sometimes bad.

The Roman Catholicks say, that though our *Free Will* be so conspicuous, that to call it in question is an incredible Folly, it has notwithstanding been denied by a great Number of Persons. For (without mentioning those Philosophers, such as *Democritus* and his Disciples, who attributed every Thing to Fate; and Astrologers, who submit all sublunary Things to the Influences of the Planets) it is certain, that there have been, and are still some Christian Sects, whom they call antient and modern Hereticks, who have endeavoured to destroy our *Free Will*, and who have all been anathematiz'd by the Council of *Trent*, *Sess. 6. Canon. 5.* in these Words, *If any Body says that the Free Will of Man, has been lost or extinct after Adam's Sin, or that it is a Thing of Title only, or a Title without the Thing, or lastly, a Tale forged by Satan, and introduced by him into the Church, let him be Anathema.*

They are of Opinion, that that Council has defin'd nothing but what is inculcated throughout the whole Scripture; which is witnessed by Authors both sacred and profane, and in whose Favour Nature declares itself. For in the sacred Books, God speaks thus to *Cain*, *Gen. iv. 7.* *And thou shalt rule over thine Appetite.* And *St. Augustin*, in *Psal. 91. num. 3.* *Thine Ears are placed between God admonishing, and the Serpent suggesting; why are they inclined thither, and turned away from hence? Satan is continually persuading Evil, and God persuading Good; but Satan cannot force him who is unwilling; it is in your Power to consent, or not consent.*

But this Persuasion has so prevailed on our Mind, that it would be needless to heap up together a great Number of Reasons and Testimonies to confirm it. If there was no *Free Will* in Men, the whole Œconomy of the human Life would be subverted; it would be in vain to make Laws, to reprimand, admonish, praise or blame; neither would it be just to give Rewards to the Good, and to punish, if we could not act when we please, and abstain from acting.

From this I'll pass to the *Goodness of the human Acts.*

Human Actions, compared with the *Rules of Manners*, are called moral; and if they be agreeable to those Rules, are esteemed good, but if they decline from them, bad; so that the Morality, as they call it, is nothing else but its Relation to its Rule, whereby it is determined morally good or bad.

The *Rules of Manners* (at least the primary Rules) whereby a human Act must be measur'd, are the *eternal Decrees*, or *divine Law*, and the right Reason, of which I'll speak hereafter. An human Act is to be

compar'd with these Rules, as well with Regard to the Object, and the End, as to the Circumstances; for every Body knows that an human Act, consists in the Object, End, and Circumstances.

The Object of a human Act is that towards which that Act tends, and which can be considered either *materially* or *formally*.

It is considered *materially*, as far as it is a Matter subject to certain Acts, with regard to which, several other moral Acts, though of a different Kind, can be done; as the same Man can be an Object of Love or of Hatred; of Adulation or of Reproaches, &c. An Object thus considered is always good, of an identical Goodness, it being either God who is perfectly good, or a created Thing, which is good by Participation; but has neither a moral Goodness, nor a moral Vitiolity; because it is neither agreeable to the Rules of Manners, nor contrary to them; and consequently cannot give to the Action, either a good or bad Species, in the Gender of Manners.

The Object is considered *formally*, when considered under some formal Form either physical or moral; and then it establishes a Species of the Act, either physical or moral; and as far as it is agreeable or repugnant to physical or moral Principles, communicates to the Action either a physical or moral Goodness, or Vitiolity. But it might happen that an Object is good *formally*, according to a physical Species, and bad *formally* according to a moral Species, and the contrary. For Instance, if a Painter paints in an elegant Manner some obscene Figures, the Object will be good physically, and bad morally; so that the Action will be good *formally*, according to the physical Species, and with Regard to the Execution of the Rules of his Art of Painting; but will be bad *formally*, according to the moral Species, that is to say, if compared with the Rules of Manners. On the contrary, if he represents ill, pious Things, and proper for Instruction, the Object will be good morally, but bad physically. But if the Object is neither agreeable to the Principles of Physick, nor contrary to them, *v. g.* if any Body proposes a Collyre, which does neither good nor harm to the Person it is applied to, this considered under a physical Form, and with Regard to the Principles of the medicinal Art, is entirely indifferent. Likewise, if the Object is neither agreeable, nor repugnant to the Rules of Manners, the Object thereof, considered in its Species, or under a moral Form, and comparatively to the Rules of Manners, will be neither morally good nor bad. As painting Flowers, Edifices, Woods, Rivers, &c. is in its Species, neither good nor bad morally, or comparatively to the Rules of Manners, but is entirely indifferent. Therefore, such Acts whose Objects are indifferent, take their moral Goodness or Malice from the End and Circumstances.

The End of a human Act, is that for which the Act is done; and can likewise be considered, either *physically*, or *morally*, *v. g.* if any Body takes a Medicine for the Recovery of his Health, this End is good physically; but is neither good nor bad morally, but when compar'd with the Rules of Manners; therefore the End is good morally, if any Body wish for his Health, with the Intention of making it subservient to God's Glory; and bad if he desires it to gratify his Passions.

Note, That the formal Object of a human Act, is also sometimes called *Motive*; *v. g.* God's Goodness, or the Relation he has with our Nature, which wants several Things from him, *viz.* his Assistance, and that he may perfect it, is called the *Motive*, or Reason why we love him. Sometimes the *Motive* is taken for the End, as when Health is said to be the *Motive* which induces such a Person to take a Medicine. Lastly, *Motive* is also taken, though very seldom, for the efficient Cause; as the Advice which has engaged somebody in a good or bad Action, is said to be the *Motive*, whereby it has been done.

Lastly, we call *Circumstances of an Action*, all the Things which accompany the Action, as the *Place*, the *Time*, the *Manner*, and the *Assistance*, and all these Things are included together, with the *Object*, *End*, and *effective Cause*, in the following Verse:

Quis, quid, ubi, quibus auxiliis, cur, quomodo, quando.

Quis, or who, denotes the Person, or effective Cause; *quid*, or what, the Object, or that on which the effective Cause operates; *ubi*, where, the Place; *quibus auxiliis*, by whose Assistance, the Succours; *cur*, why, the Reason of the Action; *quo modo*, how, the Manner it is done; *quando*, when, the Time when it is done.

At present we must enquire into the *Origin of a moral Evil, and of all the Calamities of our Life*.

As *Manes*, and his Disciples the *Manichæans*, could not very well understand that Evil was not a Thing of some Nature, nor persuade themselves that the Concupiscence whereby Men are incited to perpetrate the most atrocious Crimes, was not the Effect of some very potent effective Cause; following the delirious Dreams of *Cerdon*, *Marcion*, and other Hereticks, and even of the Magi of the *Persians*, they imagined two Gods; one God, from whom proceeded all Sorts of Goodness; and the other Bad, who was the Author of all Evil. For they thought it incredible, that a good and just God could be the Author of that deprav'd Concupiscence, whereby Men are induced to perpetrate the most horrid Crimes, *viz.* Murder, Adultery, and an Infinity of others against Nature itself.

Pelagius, and his Disciples, us'd to teach that the Concupiscence of the Flesh was a Good of Nature, and in that were different from the *Manichæans*; but *St. Augustin* in several Places of his Writings, destroys the Error of the *Pelagians*, and the monstrous Lies of the *Manichæans* of their two Principles. For God has created Man Just, and Right, but Man himself has corrupted his Ways, and has not only given that mortal Wound of Concupiscence to himself, but likewise to his whole Posterity. Therefore we wanted Christ to heal that Wound. For as the Apostle says to the *Romans*, v. 18, 19. *Therefore as by the Offence of one, Judgment came upon all Men to Condemnation, even so by the Righteousness of one, Justice came upon all Men unto Justification of Life. For as by one Man's Disobedience, many were made Sinners; so by the Obedience of one, shall many be made Righteous.* Therefore the Origin or Source of all Evil is *Adam's Sin*; from which flows the evil Concupiscence, Diseases, Troubles, and all other Calamities, even Death itself.

There is not the least Room to doubt of the deprav'd Concupiscence, notwithstanding what the *Pelagians* can alledge to the contrary, and it has another Principle from God; neither was it to be found in *Adam* while he continued in his Innocence. For it is according to Order, that the inferior Part should be governed by the superior; whence if the Flesh revolts against the Spirit, it is not the Work of God, but of the Man himself, who has rebelled against his Creator; therefore the Soul should govern the Flesh, and keep it in Subjection; according to *St. Augustin*, *Lib. 2. cont. Julian. n. 24.* but in Brutes which are destitute of Reason, those Motions attributed to Concupiscence, are not contrary to Order, but are agreeable to Nature; and in Man they are Imperfections, or Vices.

In fact, what can be imagin'd more absurd, and more horrible, than to make God the Author of that Depravation of Mind, whereby Men are inclin'd to Things which himself has so strictly forbidden, *viz.* Thefts, Murders, Poisoning, Adultery, and all the other Vices which offend in so sensible a Manner, human Nature? How can it be imagin'd, that the just and wise Creator would have disgraced his own Image, with that horrible and monstrous Concupiscence, when he inspir'd him with the Breath of Life? Or who would not rather acknowledge, the deep Wound inflicted on human Nature by *Adam's Sin*, which has

thrown all his whole Posterity into a languishing State, and wanted a Physician?

Solomon says, that he has only discovered this Thing, *Ecclesiast. vii. 29. That God has made Man upright*, which must not be understood of the Uprightness of the Body only, says *St. Augustin*, *Lib. de corrup. & grat. num. 32.* but likewise of the Uprightness of the Soul, which is from Grace and Charity. But Man by his Sin has deviated from that Uprightness, and is fallen from that Grace he had been adorned with; and he has not only lost it for himself, but for us likewise, who are his Descendants; for we all come into the World, in the feminal Way, thro' Concupiscence, which cannot be govern'd by Reason; tho' a little moderated by the Continnence of the conjugal Knot. Whence we are all conceived, says *Job xiv. 4. from a corrupted Seed.* And hence proceeds the original Sin, according to *St. Augustin*, *Lib. 2. de nupt. & concupisc. num. 20.* for the Soul of Man, in the State of Innocence, govern'd the Motions of the animal Spirits; but after his Prevarication, then those Motions began to rebel against her, and to transfer that Love she had for her Creator, to the Creature, contrary to the Order established by the Creator himself. Therefore if we believe the Author of the Enquiry of the Truth, *Lib. 2. c. 2.* as soon as the human Body is formed in the Womb of the Mother, and God has joined a Soul to it, or a thinking Substance, at that same Instant, on Occasion of the corporeal Motions common to the Fœtus and the Mother, it inclines towards corporeal Things; when as he should stick with all his Might to his Creator, who alone deserves his Love. Therefore his first Motion in that Flesh of Sin to which it is joined, is a Sin. And it is very justly that the Royal Prophet cries, *Psal. li. 5. Behold I was shapen in Iniquity; and in Sin did my Mother conceive me.*

Let it be then for a constant Truth, that the deprav'd Concupiscence is the Revolt of the Flesh against the Spirit, whereby the Mind is in some Measure subject to the Body, and debauched from the Creator; for the Concupiscence is not God's Work, but an Effect of the Sin in which our first Parent is fallen; and has drawn all his Posterity into the same Ruin. *Non est*, says *St. Augustin*, *Lib. de dono. persever. num. 29. ista natura instituti hominis, sed pœna damnati.*

Then as to speak of that Legion of Miseries, which has covered the Face of the Earth, after the Sin of our first Parents, we read in *Genesis iii. 16. 17.* a Law promulgated by God himself, by which (if we except the blessed Virgin *Mary*, who conceived by the Operation of the Holy Ghost, without the Concupiscence of the Flesh) that all Women in the Person of *Eve*, are condemned to bring forth their Children in Sorrow; and Men in *Adam's* Person, to perpetual Toil and Labour. The Sentence is clear and intelligible; let us hear at present, *St. Augustin* disputing against the *Manichæans*, and *Pelagians*, on the Effects of that Sin. *Sin*, says he, *Sermon 193. c. 3.* is the Cause of all our Miseries. And *Lib. 4. cont. Jul. Pelag. c. 16.* the Evidence of that Misery, has forced the *Pagan Philosophers*, who knew, or believed nothing of the Sin of the first Man, to say, that we are born to blot out the Pains due to Sins committed in a former Life; and that our Souls have been joined to our corruptible Bodies, as a Kind of Torment, like that the *Hetrusians* us'd to afflict Thieves with, joining the Living with the Dead.

Lastly, with Regard to Death, *Adam* had never been subject to it, if he had abstain'd from Sin. For from the *Wisdom ii. 23, 24.* God created Man immortal. But through the Envy of the Devil, Death entered into the World. And in the Epistle to the *Romans v. 12.* Whereof as by one Man, Sin entered into the World, and Death by Sin; and so Death passed upon all Men, in whom they have all sinned.

But though Baptism takes off the Guilt of the original Sin, it notwithstanding does not take off the Concupiscence, nor the Necessity of dying, and the other Incommodities of the present Life. For which *St. Augustin*, *Lib. 2. de peccat. merit. c. 3.* give this Reason,

Reason, that if we were freed from Death by Baptism, the Strength of our Faith would be thereby very much weakened, because several would embrace that Faith; in Hopes of avoiding Death; and the other Miseries of this Life, rather than by the Desire of acquiring an eternal Life.

St. Thomas says, 1 part. quest. 48. art. 1. ad. 1. that the Pythagoreans had shewed the Way to the Manicheans, by saying that Evil was a certain subsistent Nature, as well as Good; and therefore Good and Evil had established us two Sorts of Genders, or two Categories; which was also the Opinion of the Persians. But there is nothing more absurd, than to conceive the moral Good, as a certain positive and physical Nature, which wants an effective Cause; when as it is only a Defect, or Privation of Good; with, notwithstanding, some certain Relation of Opposition to the Order itself, or eternal, or positive Law.

We must next inform ourselves of the Rules of a moral Goodness and Malice.

St. Thomas, 1, 2. quest. 71. art. 6. has established two Rules of the human Acts; one which is the first, and remote, viz. the eternal Law, which is the absolute Will of God, or the Order whereby all Things are wisely disposed; the other derived, and nearer, viz. human Reason, which is like a certain Participation of that absolute and divine Will: But notwithstanding this Distinction, both are understood either under the Name of Order simply, or of natural Law; and is the Origin of all the other positive Laws, either divine or human.

Law, taken in a general Sense, and according to St. Thomas, 1, 2. quest. 90. art. 1. is, *A certain Rule, or Measure of the human Acts, whereby we are directed to do Good, or avoid Evil*; or, more concisely, is the Rule of what is to be done, and omitted; which, with Regard to the Legislator, can be defined, as it is by Tully, lib. 1. de Leg. the just Right of commanding and forbidding. For the Precepts of the Laws are of two Sorts; one which commands the Good, and are call'd positive or affirmative, as this, *You shall love God*; and the other which forbids Evil, and are call'd negative, as, *Thou shalt not kill*.

All Law is either positive, or natural; that is mutable, and this is not subject to change.

The natural Law is either consider'd in God, or in us: In God, it is call'd an eternal Law, or an eternal Order; and in us, it is either call'd right Reason, or natural Light; or retains the Name of natural Law only.

The positive Law is that which is made by Legislators; whence it is not immutable, like the natural or eternal Law; but, on the contrary, is subject to Changes. But as I design to compile all the positive Laws under the Letter L, I'll confine myself to speak in this Place of the natural and eternal Law.

It is a general receiv'd Opinion, that the eternal Law is the Source of all others, and the first Rule of the human Actions. This eternal Law is nothing else but an eternal Order, establish'd by the sovereign Wisdom, and which contains all that we are to do, or to avoid. The eternal Law, says St. Augustin, lib. 22. contr. faust. c. 27. is a divine Order, or God's Will, commanding to preserve the natural Order, and forbidding to disturb it. The same Father explains, Lib. 1. de ordi. c. 10. what the natural Order is. It is an Order, says he, by which every Thing is done that God has established: Therefore the eternal Law is an immutable Order. To which is agreeable, all that's done right; and all that's done wrong, disagreeable. Whence the same St. Augustin, lib. 1. de Lib. arbit. c. 6. To explain to you, says he, as much as I am capable, and as concisely as possible, what that Notion is of the eternal Law, which is imprinted within us, it is that whereby it is just that all Things should be in Order. Then lower exposing in the same Book, c. 15. which is the first Precept of that same Law, he says, that the eternal Law commands, to turn our Heart from Things temporal towards the eternal. Neither does he believe that Men can otherwise sin, than by turning

themselves from God towards the Creatures, either to fix their Affections on them, or to enjoy them: For though we are to make use of Things created, we are never to enjoy them. Neither are we to make use of them, but inasmuch as they are conducive towards obtaining the Fruition of the sovereign Good. The Good, says the same Doctor, Lib. 15. de civit. Dei, c. 7. num. 1. make use of the World to attain to the Fruition of God; and the Bad, on the contrary, want to make Use of God to enjoy the World.

The natural Law, which is also call'd right Reason, natural Light, and natural Order, is that same eternal Law, or a certain Participation of the eternal Law in a rational Creature, whereby she is render'd capable to make the Difference betwixt Good and Evil. According to St. Thomas, 1, 2. quest. 91. art. 2. where he quotes the Words of the Royal Prophet, Psal. iv. 6, Offer the Sacrifices of Righteousness; and put your Trust in the Lord. And if any Body was asking which are the Deeds of Justice, the same Royal Prophet adds, There be many that say, who will shew us any Good? Answering that Question, he says, Thou hast made the Light of thy Countenance to shine upon us; i. e. the Light of a natural Reason, whereby we make the Difference between Good and Bad: Which natural Law is within us naturally. According to Cicero, lib. 1. de legib. Lex est ratio summa insita in naturâ, quâ jubet ea quæ facienda sunt, prohibetque contraria: eadem ratio cum est in hominis mente, confirmata & confecta lex est.

The first Principles of that natural Law consist in the Love of God above all Things; and of our Neighbours, for the Sake of God; which no Body, that has any Sense, will pretend to deny, or be ignorant of. For with the least Attention we can easily discover, that we have all been created by some omnipotent Being; and therefore the good Order requires,

First, That we should love God with all the Faculties of our Soul, and above all Things; and return him perpetual Thanks for the daily Favours we receive from him. For it does not suffice (instigated internally by God himself, and Nature claiming it externally) to confess him the sole Architect of this vast Universe; but we must besides, with all the Propensity of our Will, return him continual Thanks, as well for his having created us from nothing, as for preserving us, and supplying us with all that's necessary to support our Life. Therefore the Apostle, Rom. i. 20. declares inexcusable those who when they knew God, they glorify'd him not as God, neither were thankful; but became vain in their Imaginations, and their foolish Heart was darkened.

Secondly, If we love God as we ought; because Order requires it, from which the natural Reason cannot deviate without Sin, we must also love other Men; created by the same Being, for his Sake; and give to every one of them his own. Therefore, says St. Peter, 1 Epist. ii. 13. Submit yourselves to every Ordinance of Man for the Lord's Sake: Whether it be to the King, as supreme; or unto Governors, as unto them that are sent by him for the Punishment of evil Doers, and for the Praise of them that do well; and all other Men, either our Equals or Inferiors, we must love as our Brethren; not only by doing them no Harm, but rather by rendering them all the good Offices we can. Therefore we'll bare no false Witness, we'll commit no Theft, no Murder, &c. because those Things are contrary to Order, and consequently to the Love of God and our Neighbours.

Therefore all the moral Duties of Men, are contained in these two Precepts, or are deduced from them. As Christ himself witnesses it, Matt. xxii. 37. and following. Where a Phylsician and a Doctor of the Law asking him, which was the greatest Commandment in the Law, he answers thus: Thou shalt love the Lord thy God with all thy Heart, and with all thy Soul, and with all thy Mind. And the second is like unto it; thou shalt love thy Neighbour as thyself. On these two Commandments, hang all the Law and the Prophets. Therefore the first Precepts of the natural Law consist

consist in the Love of God above all Things, and of our Neighbour for the Sake of God.

Note, That we cannot accomplish the natural Law with our natural Strength alone; but Charity is requisite, which is supernatural, and which effects within us what the natural Law shews us. To understand better what I have heretofore said on this Subject, and what I'll say afterwards, we must propose in this Place some Definitions relating to the Love of God and of our Neighbour.

1. LOVE, as we have so often said already, is a Propensity of our Will towards the Object which delights us; and that Propensity is so great or so strong towards the sovereign Good, or our Felicity, that we cannot resist it: Hence that natural, necessary, and unconquerable Appetite of our Felicity, wherefrom proceeds the Love we bear to ourselves, and other Men; or with which we pursue other Things. For what is the Love we have for ourselves? but the Appetite of our Beatitude; thereby we endeavour to acquire all that can render us happy, such as Life, Health, Strength, Riches, Honours, &c. Though we are but very seldom the Object of our own Love, but only that *Subject* to whom we wish well. I am conscious that some Men are much enamour'd with themselves, which was the Crime of the Prince of the Devils; but however, as our Nature is lame in several Parts, and has been robb'd of a great many of its Talents or Perfections, by the Sin of our first Father *Adam*; it is impossible any Body would be so blind, to place his Felicity in himself, as in the Object of that Felicity. Therefore we are never otherwise induced to Love, but by the Appearance of the Good, or of the Delectable, and often of both; without which there could be no Love excited within us. For if we pursue Riches, Honours, and Pleasures, it is because we discover something in them which flatters our Nature. If we love our Parents, Friends, and Relations, we are attracted to it by an inward Sense of Pleasure, which can be better felt than explain'd. Therefore in all Kinds of Love, there is always something agreeable to our Nature, which affects us.

Therefore Love, if it be considered with Regard to its Principles, *viz.* either natural, necessary, and unconquerable, whereby we desire our Felicity in general; or free, whereby we pursue freely some private Good; both become *supernatural* by the Accession of the Grace of God, which is called Charity, of which I'll speak afterwards. If Love be considered with Regard to its Object, it is also of two Kinds; for one the Love of God, and the other the Love of Creatures; *viz.* either of us, of other Men, or of other Things, as Riches, Honours, Pleasures, &c. Lastly, if it be considered with Regard to the Manner we incline towards the Thing we love, one is called *Love of Desire*, whereby we pine after an absent Object; and the other *Love of Fruition*, whereby we cleave to the Object we possess, &c. but we must remember, all Kinds of Love for the created Things ought to be referr'd to God, as to the Origin or Source of all Sorts of Goods; so that God must be beloved above all Things, and the Creatures for his Sake.

2. To love God above all Things, is to prefer him to all created Beings, or to incline towards him as the sovereign Good, with all the Faculties of our Soul; and to love all other Things for his Sake, and as it is agreeable to Order.

3. Our Love for God, ought to be alone, and properly a *Love of Complaisance*, or a Love whereby we are pleased, or delighted in God as in our sovereign Good. For we are not allowed to delight in ourselves, or in other Creatures, as in a sovereign Good; because this Love terminates in God, as in the sovereign Good, it is improperly called by some, a *Love of Concupiscence*; when as the Love of God is *pure* and *chaste*, and proceeds from our Will, assisted by the Grace of God; not from the Concupiscence, which has only for Object, the Things created. And as

that Love has no other Object but God himself, and is divested of all human Views or Considerations, it must be called *gratuite*, not *mercenary*, which, say the antient Fathers, *it is required of you that you should serve him gratis, not because he gives the temporal Things, but because he warrants the eternal.* Says St. *Augustin*, in *Psalm* xliii. 16. 17. and on the *Psalm* lii. 6. God, says he, *will be served gratis, be loved gratis, i. e. of a chaste Love; not be loved because he gives something besides himself, but because he gives himself.* This Love of God, can also be called Love of Friendship, in as much as we love God in Gratitude for his having loved us first.

4. The Love of our Neighbour, is a *Love of Benevolence*; whereby we wish him all the Good we desire for ourselves. When this Love has for its Object our Parents, or our Country, it is called Piety; if there is a reciprocal Love between us and our Neighbour, it is called a Love of Friendship, or is a true Amity.

5. Again the Love of God, is considered either in the Blessed, or in those who are *in termino*, in us who are yet *in via*. The Love of God in the Blessed, can be called *Amor Patriæ*, or the Love of Fruition. Thereby the Blessed are intimately united to God, and inebriated with a Torrent of Pleasure, desiring nothing, and hoping for nothing. The *Love of God* in us, is a Love joined with Hope and Desire, wherewith loving God, we pine after him; and this Love is more or less perfect, as it is rais'd to a greater or less Degree of Excellence.

6. The Love, called of Complaisance, when relating to God as our sovereign Good, is a Love of Concupiscence, when fix'd on the Creatures, is a vicious Love. For the Order cannot suffer that we should love the Things sensible, with a Love of *Complaisance* or *Fruition*, though we are not forbidden to love ourselves, or other Creatures, provided we love ourselves, and the other Creatures, for the Sake of God; for then, such a Love is not of *Concupiscence*, or of *Cupidity*; else *Cupidity* is not very different from Charity, and is regular. Therefore an inordinate Cupidity, fixes itself on the Creatures; and a modest Cupidity, tends toward God. But as there is no Charity without Fear, but that Fear is chaste; nor without Cupidity, but that Cupidity is in the Order, says St. *Bernard*, *Traët. de diligendo Deo. c. 14.* that *chaste Fear*, is a *filial Fear*, which includes the Charity, at least begun and imperfect; and is afraid to offend God because he is good, because he is beloved; a *servile Fear* abstains from Sin, not for the Love of God, but for the Hatred of the Torments; so that if there were no Torments, he would make no Difficulty to commit Sins. But God, who calls himself *jealous* in several Places of the Scripture, especially *Exod. xx. 5.* wills that we should avoid Sin through Love for him, and not through Fear of the Punishment; and consequently wills that we should always incline towards him, without fixing our Affections on the Creatures. Tho' it happens but too often, that contrary to the natural Order all our Desires tend that Way. For as God does not delight us in this Life, or flatter our Appetite, but by Means of the Bodies we are environ'd with; it follows hence, that all the Delectation which can excite Love, is supposed to consist in those Bodies; and consequently is not referred to God as received from him. Therefore Fruit appears agreeable to us, because by Means of the Motion of the Particles it is composed, it excites a certain Pleasure when we eat it. Likewise we are surpris'd by the Love of other Creatures, of any Kind whatever, because they are the occasional Causes of our Delectation; which, notwithstanding is not excited within us by the Creatures, but by God alone; however we cannot be susceptible of that Love of God, as we ought to be with Regard to our eternal Felicity, without the Assistance of his Grace,

We cannot be ignorant (I speak of an invincible Ignorance) of the first Principles of the *natural Law*, since they are universally known; every one having a natural Idea of the natural Law, whereby he knows that he must

must love God, from whom he has received all he has; and afterwards, that he must love other Men for the Sake of God, by whom they all have been created; and hence he can easily infer, that he ought not to do to his Neighbour, what he would not have done to himself; whence it follows, that he is not to rob, nor to kill, &c.

St. Ambrose, *Epistle* 73. *class.* 2. and St. Augustin, in *Psalms* 57. *num.* 1. is born with us; and that we have Need of nothing else to learn its Precepts, but to consult our own Heart; though some Nations have tolerated Things contrary to this Law. For we learn from *Cæsar*, *Lib.* 6. *de bell. Gallic.* that Theft was not reputed infamous among the antient *Germans*; which proceeded from the Corruption of Nature, and the Barbarity of the People; for if those had been attentive to the Dictates of their Reason, they had condemned that Opinion as repugnant to Nature.

Aulus Gellius relates, *Lib.* 11. *noct. attic.* in the last Chapter, that Theft was licit among the *Egyptians* and *Lacedæmonians*; but they suffered it, not that they were ignorant of the natural Law which condemns Theft, but because they imagin'd that such Licence was advantageous to the Republick. For when the Legislator of the *Egyptians*, says *Diodorus Siculus*, *Lib.* 1. *Bibli. Eccles.* persuaded himself, that it was not expedient that every Body should abstain from Theft; he searched the Means whereby the Proprietor should recover his Goods, without suffering much Damage; therefore, those who embraced that most honourable Profession of Thieving (which flourishes yet) were commanded to give their Name to the Master of the Thieves, and carry to him all that they had stole; that the Owners by applying to him, and paying a fourth Part of the Price they were valued at, as a Punishment for their Negligence, should recover them.

Lycurgus, the Legislator of the *Lacedæmonians*, had not allowed the Theft of all Kinds of Things, indifferently, but of Food only; (as we learn from *Xenophon's Lib. de Repub. & Leg. Laced.*) Neither had he permitted every Body to rob, but Youths only; whom he would have come at their Food by Theft, to learn Industry and Vigilance, how to lay in Ambuscade, and send out Parties, &c.

The Precepts of the *natural Right*, are also immutable, and no Body can be excused from observing them; they are immutable, because they are agreeable to Reason, and never can be contrary to it; no Body can be excused from observing them, because they are so agreeable to Order and Reason, that they cannot be omitted or changed, without causing a great Confusion in the good Order which ought to subsist in a civil Society: For how could a Creature renounce the Love of God, or a Brother oppress his Brother, without violating the Rules of good Order and right Reason?

It may be objected, that the natural Law forbids Murder, Theft, and Adultery; whereas God himself has permitted all those Things.

1. When he commanded *Abraham* to offer up his own innocent Son in Sacrifice, *Genes.* xxii.

2. When he commanded the *Hebrews* to carry off along with them, the Vases of Silver they had borrowed from the *Egyptians*, *Exod.* xii. 35.

3. When he commanded *Hosea* to take a Wife of Whoredom, *Hos.* i. 2. And that therefore the Precepts of the natural Law can be changed.

I'll answer with St. Thomas, 1, 2. *quest.* 94. *art.* 5. and 2. that the Examples above quoted, prove nothing against us. For,

1. Murder, is that which is committed by a Person of his own private Authority; and that is forbidden by the natural Law, which Prohibition has never been altered. If any Body kills a Man of a publick Authority, v. g. in a just War, that's not called Murder, much less when God, who is the Lord of all Things, commands a Man to kill another. For all are condemned to die, says St. Thomas, in the Place above quoted, of a natural Death, the Innocent as well as the Guilty, which natural Death is inflicted by the Almighty,

for Punishment of the original Sin. — Likewise, by God's Command, a Man may be put to Death, either innocent or guilty; without offending the natural Law.

2. Theft, is never committed but against God's Will, but when God, who is the sovereign Lord of all Things, commands it, it is not done against his Will, and consequently is not Theft. Neither does the natural Law dictate, that we cannot without Injustice, transfer to others what is our own; but we are only forbidden, to take of our own Authority, what we know belongs to another. Therefore the Church sings on *Easter-Eve*, *O veré beata nox, quæ spoliavit Egyptios, ditavit Hebræos!* because God, who was Master of all those Things, commanded it.

3. Adultery, is defiling another's Bed, but when the Prophet *Hosea* is commanded to take to Wife a Prostitute, he did not defile another's Bed, and therefore was not guilty of Adultery. Besides, it is not said that his Wife prostituted herself afterwards; and if she had, no Law could have obliged him to keep her: For as we read in *Proverbs* xviii. 22. *He that keeps an Adulteress, is foolish and impious.* But *Hosea* taking a Prostitute to Wife contains a Mystery, which shews that the Synagogue had forsaken God her Spouse, for the false Divinities of other Nations:

The moral Good and Evil, or the Honest and Dishonest, are distinguished not only by Men, but by Nature itself; because the Honest is conformable to the good Order established among us by our divine Creator, and the Dishonest contrary to it. *Cicero* has confirm'd this Truth, by several very solid and persuasive Arguments. *L.* 1. *de Leg.* *Nothing certainly is more charming, says he, than to understand clearly; that we are all born to Justice, not only in Man's Opinion, but of a natural Right.* And a little lower, *Where is the Nation that does not love a complaisant and grateful Spirit? And where is that People which does not despise and hate, the Proud, the Vindictive, the Cruel, and the Ungrateful? Whence it follows that we are all naturally born just, for a mutual Communication with one another.*

Somebody will say perhaps, with *Horace*, *Lib.* 1. *Serm. Satyr* 3. *that all Things are to be considered not as they are natural, but as they are useful; and that Utility is the Mother of all that's just and equitable.* *Hobbes* an Englishman, *Element. Philos. de cive*, *Title, Libert.* c. *art.* 10. favours this Sentiment of *Horace*, when he says, *that in a State purely natural, and before Men had entered into any Pacts or Conventions among themselves, it was licit for every one to act as he pleased.* And, *art.* 2. that the Action is false, *that Man is born for Society*, though it be approved and received by several: For says he, *that Thing is not done, because it could not be naturally done otherwise, but by a mere Accident.* Whence he infers, that Society is contracted in View only of the Utility resulting from it to one's self, not by Love for the Members of that Society; and therefore, that all the Offices of this Life, are to be measur'd by the Utility, not by the Nature. Which Sentiment is also approved by that Contemner of all Religions, *Spinoza*.

I answer first, that the moral Good and Evil, or Honest and Dishonest, or Licit and Illicit, in question here, are to be measur'd by the *natural Reason*, and *Love of Order*, and not by *Utility* alone; though the publick Utility be joined with Reason and Order. For it is of common Utility, that no Body should attack the Life or Fortune, or Reputation of another, which is also forbidden by natural Reason, and good Order. Whence the *publick Utility* can very well be called the *Mother of the positive Right*, as far as it decrees Punishment, who consulting only their own vicious Inclinations, make no Difficulty of violating the natural Right, by offending others. Therefore if we speak of the positive Right, what *Horace* says in the same Place, is very true,

Jura invicta metu injusti fateri necesse est.

But what he adds afterwards,

*Nec natura potest justo secernere iniquum,
Dividit ut bona diversis, fugienda petendis;*

is likewise true, inasmuch as we do not distinguish the Just from the Unjust, by a natural Impetuosity, and without Attention, as we pursue the sensible Good, by the sole natural Instinct; and avoid Evil, likewise by a natural Instinct: Therefore if any Body interprets this of our Capacity to distinguish Good from Evil, Just from Unjust, not by Nature, but by our natural Reason; certainly I am not afraid to say, that such Sentiment is contrary to Reason.

Secondly, With Regard to *Hobbes's* Sentiment, we do not at all question, but Man inclines of a natural Instinct to that, which he sees more agreeable to him; neither can we love what is displeasing to us, in whatever Manner it may be capable to invite us, either by itself, or with the Assistance of another: For if we love the sovereign Good, it is because it is agreeable to us, and it engages our Will. Likewise we love the Society of other Men, for no other Reason but because it is convenient to us. For the sole *Motive* or *Incentive*, whereby we are excited to Love, is that of its being agreeable and convenient to us; and in that Sense, *Man is defin'd an Animal born for Society*; that he cannot, alone, procure to himself all the Goods of Nature, but wants the Assistance of others. But however, he must not love other Men for himself only, or refer every Thing to his own Utility, as to their chief End, otherwise he would love himself alone and not others; and would be ready to rob them of their Fortune, and even kill his own Father, if he was to think it expedient for him; which the *natural Reason*, and the *immutable Order*, does not permit. Whence nothing can be imagined more horrible than this Principle, That we may do any Thing to advance or promote our Interest; That we have no other Director of our Actions but our own Utility; and that we are not restrained from offending others, by Nature, but only through Fear of the Punishment inflicted by the Laws.

Therefore when *Hobbes* says, That every Body has a Right to consult his own Preservation; he does not offend the Truth: But that Love of one self, which engages us to pursue our own Good, must be subordinate; and though we do not love others for any other Reason but because that Love suits our Conveniency, it is notwithstanding contrary to the natural Law, to procure our own Good to the great Prejudice of others: For we are not allow'd, for Example, to lay violent Hands on another Man, to gain some Advantage by it; whereas we should be very sorry to be treated in the same Manner. Therefore there is a very great Difference between loving others, because they are good or serviceable to us, at least towards assisting us in the Acquisition of the sovereign Good; and between loving them purely for our own Utility, and be ready to offend them, if in so doing we could gain some Advantage; or to neglect or abandon them when they are no longer useful to us; which, notwithstanding, has been the common Practice of almost all the civil Societies, for several Centuries past. For it is very rare to find among Men, especially in our Iron Age, the least Trace of the natural Law, with Regard to that Love we are obliged to have for one another; unless it be that Love mention'd by *Hobbes*, which is entirely founded on, or has no other Object but our *Utility*, which is commonly call'd an interested Love; and more properly no Love at all.

This Kind of *Hobbian Love*, consists entirely in an outward Shew, perfidious Demonstrations, and false Protestations, divested of that Sincerity and Candour, which Nature itself claims from us. For it is at present, an infallible Maxim, that the greater Pains a Person takes to persuade us of the Sincerity of his Love, the more he is to be suspected by us, and the more we are to be upon our Guard, lest he should make use of that Stratagem (as it happens but too

often) to deceive us more to his Advantage. His studied Looks, his affected Speech and Smile, his most solemn Vows, and his calling to Heaven to witness his Sincerity, are all convincing Proofs of his Perfidy; and a sincere and disinterested Friend is to be met with, neither upon the Throne, nor in the Sanctuary, nor in the Palaces of the Great, nor among Parents or Relations, nor in the conjugal State; and, must I say it, to the Shame of this Age, not even in the Cottage of a Peasant.

For Instance; where could we find, at present, a Man who would assist or relieve another, without any human or interested View, and for the sake of assisting or relieving him only? Or in View that such Act of Friendship, forwards him towards the Acquisition of the sovereign Good? Where could we find a Prince, who would bestow his Favours on a Subject, on no other Consideration, than that he deserves or wants them? Where is the Ecclesiastick, who would run to the Assistance of a poor Wretch who is on the Brink of Eternity, with the sole View to save him from the Precipice he sees him on the Point to fall into? And where is the Wife who would keep true to her Husband, if she was not afraid that her criminal Intrigues could be discovered.

From this I'll pass to *Conscience*, which some confound promiscuously with *Synteresis*; though *St. Thomas* distinguishes the one from the other, and says, that *Conscience* is properly the Act whereby we apply our Knowledge to our Actions; and *Synteresis*, an Habit, which inclines us to give our Assent to the first moral and practical Principles. Whence in that Sense the habitual Knowledge of the first moral Principles, or Intelligence, is *Synteresis*; and their Applications, which is like the Conclusion of a practical Syllogism, is *Conscience*; thereby every one knows actually, not only that he exists and understands, but likewise when he acts, or has acted right or wrong; therefore our *Conscience* approves or reproves all our Actions; and though it seems to be in some Measure, asleep, in the Obdurate and Impious; it, notwithstanding, never is entirely extinguished, not even in the damned Souls, according to this Passage of *Isaiab*, lxvi. 24. *For their Worm (i. e. the Remorse of their Conscience) shall not die.*

Therefore *Cicero* speaks thus of the *Conscience*, *Lib. de senect. The Conscience of a good Life, and the Remembrance of a great Number of good Deeds, is agreeable.* And *Horace Epist. 1. l. 1.*

————— *Hic murus abeneus esto,
Nil conscire sibi, nulla pallescere culpa.*

And *Juvenal*, Satyr. 13.

*Pœna autem vehemens, ac multo sevirior illis,
Quas & cœditus gravis invenit, ut Rhadamantus,
Nōste dieque usum gestare in pectore testem.*

Those who treat of Manners, distinguish different States of the *Conscience*. For the *Conscience* is either true and certain, or probable, or dubious, or erroneous, or false.

The *Conscience* is said to be true and certain, when we understand clearly and distinctly, what is commanded or forbidden; and therefore what we must do or omit, *v. g.* every Body knows, that we are not to do to others what we would not have done to us: Because that Law is engraven on our Mind.

A *probable Conscience* is that founded on probable Arguments. So that if the Arguments on both Sides be of an equal Strength, the *Conscience* becomes dubious. Whence a *Conscience* is called dubious, whereby the Mind remains uncertain of what it ought to do; and has not a plain Security. There is a great Affinity between this and a scrupulous *Conscience*; which though she walks upright, is nevertheless retarded, by some Scruple or other.

Scruple, is properly a small sharp Stone, which hurts the Foot, and hindereth from walking with Ease. But

But metaphorically, it is the Anxiety of the Mind, proceeding from a true and just Reason, or from a vain and ridiculous one. Whence *Cicero, orat. pro sexto*. speaks thus of *Cornelius Chrysogonus*: *He desires you would be pleased to eradicate from his Mind that Scruple which Night and Day teazes and pricks him.*

An *erroneous*, or *false Conscience*, is that which dictates what is forbidden by the Law, or forbids what the Law commands.

What is done against our Conscience, is always morally bad: And what is done according to the Dictates of our Conscience, is not always good.

All that is acted against the Dictates of our Conscience is bad; because it always includes a Perversity of Mind, and an Inclination to Sin; and he that acts thus, knows that he acts ill.

Likewise all that is done according to the Dictates of our Conscience, is not always good; because it may be done against the Order and the Law, as it happens when the Conscience errs. As that of those mentioned by Christ, to his Apostles, *John xvi. 2. Yea, the Time comes, that whosoever kills you, will think that he does God Service.*

Therefore the Conscience, generally speaking, cannot be considered as a very secure Rule of our Action; but only when it is true and certain, or when it is agreeable to good Order and the Law; all that is agreeable to it being good, and all that is repugnant to it being bad.

A *Conscience* which errs, excuses from Sin, when the Error proceeds from that Ignorance which renders an Action involuntary; but if it does not proceed from such an Ignorance, it cannot excuse from Sin.

There are two Sorts of Ignorance, as we have observed already; one is the *Ignorance of the Fact*, such was that of *Jacob*, when he took *Leah* for *Rachel*: For he was ignorant of what was done; and such Ignorance excuses from Sin, provided it be not accompanied with Negligence: And the other is the *Ignorance of Right*, whereby we are ignorant of some Right; and this Ignorance is either of the *positive Right*, which consists in the Laws depending on the free Will of a Legillator, and are neither eternal nor immutable; and therefore excuses from Sin if it cannot be conquered; or of the *natural Right*, founded on the natural Law, which we cannot be ignorant of, at least of an invincible Ignorance.

A *probable Conscience*, seems secure in the Practice; as far as the Arguments whereby it is supported are solid, and morally certain, and are not in Concurrence with a contrary Authority, or Reason of an equal Force.

When the *Conscience* is dubious, we must make Use of the Rule prescribed by *St. Paul, Epist. 1. Thessal. v. 21. Prove all Things, hold fast that which is good.* And consequently if the Reasons are of an equal Force on both Sides, we must either abstain from acting, if possible, or incline on that Side, which is more agreeable to the good Order, and favours less our Cupidity: For though that Side should not appear, perhaps, the more probable, or supported with the strongest Reasons; it is, notwithstanding, the most secure, and farthest from Danger.

If we follow that Rule of *St. Paul*, it will be difficult to determine, if we can, with a safe Conscience, follow the Doctrine of *Probability*, in our Conduct. That Doctrine consists in this, that a probable Opinion, provided it be probable, though in Concurrence with one more probable and sincere, can be proposed as a safe Rule of our Actions or Conduct. Whence it follows,

1. That any probable Opinion, can be preferred to one more probable.
2. That when a Divine is consulted, he can answer according to a less probable Opinion, though in Concurrence with one more probable; and even against his own Sentiment, give Advice according to the Opinion of another, tho' less probable; because that Opinion less probable, is notwithstanding probable; and consequently according to that Doctrine, very secure.

They distinguish two Sorts of *Probability*, viz. an *intrinsic Probability*, and an *extrinsic Probability*. They call *intrinsic Probability*, that taken from a probable Argument, whereby the Mind is inwardly affected. And *extrinsic Probability*, that which is supported by the Sentiment and Authority of some eminent Divines.

For my Part I am of Opinion, that this Doctrine of *Probability* is to be banished from among us, as very prejudicial to the good Order of a civil Society; and for the other following Reasons.

First, Because it is entirely contrary to Reason and Prudence, that we should prefer, in what relates to our eternal Felicity, the uncertain to the certain: For the *probable Opinion*, either that we have from an *intrinsic*, or inward Probability, or from an *extrinsic*, or exterior one, when in Concurrence with one more probable, and more agreeable to Law, is always uncertain, and very little secure; for which Reason the *Probability*, either *intrinsic* or *extrinsic*, is condemn'd by the Scripture: The *intrinsic*, by this Passage of the *Proverbs*, xiv. 12. *There is a Way which seems right unto a Man, but the End thereof are the Ways of Death.* And to *extrinsic*, by these Words of Christ, *Matt. xv. 14. Let them alone; they be blind Leaders of the Blind: and if the Blind leads the Blind, both shall fall into the Ditch.* Whence it appears, that this celebrated Maxim of the Law, *That in dubious Things we are always to chuse the most secure.* *Illud Dominus extra, de cleric. excommunic.* is no less agreeable to Scripture, than to our Reason. Whence *St. Augustin* likewise, *Lib. 1. de Baptism. contr. Donatist. c. 3.* (concerning that Question, If the Baptism received among the *Donatists* was rightly received, which one was sure to receive rightly in the Catholick Church) speaks thus: *Graviter peccaret, in rebus ad salutem animæ pertinentibus, vel eo solo quod certis incerta præponeret, i. e.* He who should prefer the certain to the uncertain, in Things which concern Salvation, in that only would be much culpable. The Pagans themselves have abhorred the Doctrine of Probability; as it appears from *Tully, Lib. 1. de officiis*, where he writes, *Those are in the right who forbid to do any Thing, when we are in doubt if it be right or wrong.*

Secondly, If it was licit to follow an Opinion less probable, when in Concurrence with one more probable and certain, there would be hence introduced several Dogma's, no less absurd and false, than dangerous and impious, in the Doctrine of Manners. For there is no Opinion with regard to Manners, let it be ever so monstrous, which is not countenanced by some Doctor or other. For Instance, there have been several Writers, who imagined themselves very eminent, who have wrote, that no Man was obliged, during the whole Course of his Life, to practise any Act of Faith, Hope and Charity, *in virtue of the divine Precepts relating to those Virtues.* So that he who professes himself a Christian, and has been baptized, can recover his pristine Justice, even after he has committed the most atrocious Crimes, without the least Spark of Charity; and pass his whole Life without the Love of God, though it be the first Command of the Decalogue.

After these Doctors have endeavoured to extirpate from our Hearts the Dilection of God; they attempt, likewise, to expunge the Love of our Neighbours. Therefore they are pleased to say, that it is licit for a Son to wish for his Father's Death, though it be against the fifth Precept of the Decalogue, provided he does not consider that Death as prejudicial to his Father, but only as utile to him: For, say they, that *Direction of Intention* sweeps away the Malice of the Action.

But those who imagine that they can disguise the Truth by ambiguous Words, and intricate Speeches, to deceive Mankind, contradict the express Doctrine of Christ; who says, *Matt. v. 37. But let your Conversation be, yea, yea; nay, nay; for whatsoever is more than these comes of Evil.*

Others approve the Use of mental Reservations, as they

they call them, as something very advantageous: Especially, in retaining their Propositions to a certain Sense, which they supply in their Mind. As if one was to ask me for Money, and I should answer him, *I have none*; supplying tacitly within myself that Part of the Proposition, *viz. to give you*: Others persuade an officious Lye; others imagine, that one can make Use of false Witnesses to support his Reputation, or that of his Family; and that it is even licit to kill a Calumniator, who threatens to say something to our Prejudice: All which is contrary to the third, sixth, and ninth Precept of the Decalogue.

Lastly, To pass by all the other erroneous and pernicious Opinions of the other Doctors, they are pleas'd to call Casuists, I'll include the whole Question in these few Words; which are, That if the Doctrine of *Probability* was to have Place in the moral Discipline, those Things which have been advanced of the *Philosophical Sin*, to the Scandal of Christianity, are probable; though the single Notion of it is abhorred by all honest Men. This is the Summary of that hellish Doctrine.

The Philosophical or Moral Sin, is a human Act disagreeable to the human Nature, and to right Reason: And the Theological and Moral Sin, is a free Transgression of the Divine Law. The Philosophical, in him who is ignorant of God, or does not think actually of God, is a grievous Sin, but does not offend God; neither is it a mortal Sin, alienating us from God, or punishable with eternal Death. Therefore if this Doctrine was as true, as it is atrociously false, there would be no Sin either against God, or our Neighbour, which could not be perpetrated without offending God: So that neither Fornicators, nor Idolaters, nor Adulterers, nor Thieves, nor Avaricious, nor Drunkards, nor Calumniators, nor Plunderers, who, the Apostle St. Paul says, 1 Cor. vi. 10. are all to be excluded from the Kingdom of Heaven, could provoke the Wrath of God, so as to deserve an eternal Punishment, provided they were ignorant of God, and had not an actual Thought of him: For they could admit the *Philosophical Sin*, which is against the natural Reason; but not the *Theological*, which is contrary to the divine Law actually known. Whence it should follow, that the Condition of the Infidels, Atheists, Obdurates, &c. would be far better, than that of those who work their Salvation with Fear and Trembling: Which Opinion must appear horrible, even to those who undertake the Defence of the *Probability*. Therefore they must necessarily abjure the Doctrine of Probability, if they will condemn, without Exception, all the Conclusions which can be drawn from it. Which is the Advice given by St. Augustin to Potentius, Lib. 2. de conjug. adult. c. 4. *Hoc qui sentis, says he, non ne cernis quàm contra apostolum sentiat? quod quidem non ipse sentis, sed hoc sequitur illa quæ sentis, muta ergo antecedentia, si vis cavere sequentia.*

From all these we may very well infer what we have attempted to prove, that the *Doctrine of Probability* is to be banished from a civil Society.

It may be objected perhaps, that the *Doctrine of Probability*, is not such as represented by us; and that its Partisans do not pretend that every probable Opinion ought to be a sure Directrice of our Actions; but only on the following Conditions: The first whereof is, that it should be supported by very good Reasons; and the second, that it should not be contrary, either to the evident Reason, to the Scripture, or to the Tradition.

I answer to this Objection, that none of the Partisans of the *Doctrine of Probability*, require those Conditions for the Security of their Opinion; and that those who require them, either deceive us by a vain Appearance, or destroy entirely the *Doctrine of Probability*.

For, first, when they teach, that the probable Opinion must be supported by strong Reasons; what do they mean by those strong Reasons, but those whereby they are affected themselves, or are approved by grave

Authors? And if it be so, as certainly it is, the Opinion will be probable among them, and consequently safe in the Practice, which will be supported by those Reasons, which they or their Doctors will judge proper and weighty; and therefore they'll always fall into that same Sentiment attributed to them, *viz. that an Opinion which has some Probability*, either *intrinsic* or *extrinsic*, is a safe Directrice of our Conduct, and therefore can be followed with a safe Conscience, when in Concurrence with one more probable.

Secondly, when they pretend that it is required to render an Opinion probable, that it should neither be contrary to evident Reason, nor to the Scripture, nor to Tradition, they trifle with us; for they maintain, that *that* Opinion is not in Fact, but only in Appearance, contrary to Reason, or to the Scripture, or to Tradition, which is supported with the Authority of an eminent Author; and they consequently declare it very safe. And therefore, let us employ what Arguments we please to oblige them to confess that such an Opinion is repugnant to Reason, or to the Scripture, or to Tradition, they will never do it; but rather insist with Obstinacy, that it cannot be infer'd that their Opinion is repugnant to Reason, or to the Scripture, or to Tradition; because other Arguments may be alledg'd, stronger and clearer to refute theirs. Which would be true enough, if they would confess that there is no other probable Opinion but that which is agreeable to Reason, or to the Scripture, or to Tradition; which they refuse to do, because that Acknowledgment would ruin entirely the *Doctrine of Probability*; for our Reason, or the Scripture, or Tradition, cannot suffer that we should prefer an Opinion less probable, to one more probable, and more safe. Therefore those Limitations or Modifications, imagined by the *Probabilists* to support the Probability of an Opinion, are mere Veils, wherewith they endeavour to hide the Ridicule of the *Probabilism*.

They will object secondly, that the *Doctrine of the Probability* is not to be rejected, if those who follow a probable Opinion, act then with Prudence and Discretion; for, say they, to whom must have Recourse, a Person of a mean Capacity, who knows nothing of the *Doctrine of Manners*, and is besides over scrupulous, but to his Pastor or Doctor, to acquire, through his Means, the Tranquility of Conscience he desires? And that the Opinion of his Pastor, which procures him that Tranquility, is an extrinsic Probability.

To this I'll answer, that a probable Opinion cannot be considered as prudent, simply and absolutely; for if there were two probable Opinions with regard to one and the same Thing, one whereof should be for the Law against the Cupidity, and the other favours the Cupidity against the Law; only the first will be prudent, but not the last. For Example, if it was a Question of a Contract, where it would be some Danger of committing Usury, and two Doctors are consulted, one of whom affirms, and the other denies its containing Usury, he does not act prudently, who does not follow the safer Part, and exposes himself to the Danger of Sinning.

As to what concerns the Idiots and Ignorant, who follow the Sentiments of their Pastor, they are excused from Sin, with regard to the Things they are ignorant of, of an invincible Ignorance. But that Excuse does not proceed from the extrinsic Probability of their Pastor's Opinion, but from the insuperable Ignorance of the Idiots. Whence, as they cannot be ignorant, of an invincible Ignorance, of those Things which are of natural Right, as above demonstrated, there is no Security for those, who according to some Doctors Opinion, meditate any Thing against the Precepts of the natural Right: Neither can the Authority of a Doctor, let him be who he will, prevail against the natural Right.

We must say the same of those Things which pertain to the positive Right, when very well known, of which we cannot be ignorant without Sin. For why should we be permitted to be more ignorant of those Things which relate to Manners, than of those which have Relation

Relation to the Dogma's of the Faith? For a Christian from among the Vulgar, would be inexcusable, who did not know the first Rudiments of Christianity; when as, on the contrary, all those who endeavour to learn them, are valued and praised. For it is impossible but a Pastor should sometimes err, either in the Doctrine of the Faith, or in that of Manners? What will then his Sheep do, if he cannot distinguish the wholesome Pasture, from that which is dangerous and unwholesome? Here we must remember what happened at *Constantinople*, in *Nestorius's* Time; for when the People discover'd in their Bishop's Sermons, that he preached two Persons in *Jesus Christ*, far from following his Sentiment, they condemned and detested it; in which they are much commended by Pope *Celestinus*, in his Epistle to the Clergy, and People of *Constantinople*. *Quid spei habet grex, says he, quando lupus seipse pastor ostendit, & sic oves invadit & grassatur in singulas? ea namque ore laniantur, quo impie proferentur: præbentur pabula non refectura sed noxia. Beatus tamen grex, cui dedit Dominus de pascuis judicare.*

Therefore if the People of *Constantinople* had acted with regard to their Pastor, according to the Doctrine of *Probability*, they had all fell into the Precipice with their Pastor; neither could they have brought for Excuse the Ignorance of those Things, which they ought to have learned from the other Bishops, *Nestorius's* Predecessors, and from Tradition.

Why then should the Ignorance of Things, which every Body is obliged to know, in the Doctrine of Manners, even joined with an extrinsick *Probability*, excuse a common Man, unless he was stupid beyond Measure?

This deserves the Attention of those who have only as they say, the Faith of the *Coal-man*, who when asked what was his Belief? answered, all that the Church believes: And when asked further, what the Church believed? answered again, what I believe. A Faith so ignorant, so lame, and so uncertain, cannot be an Excuse in those Men, who neglect nothing to gain a temporal Felicity, and immense Riches; and leave entirely the Care of their eternal Salvation to the Prudence and Doctrine of a Doctor, whereby they are directed.

Add to this, that the Question is not well stated in the opposite Argument. For the Question is not only if it be licit to follow a probable Opinion: For who denies that such Thing is licit? provided there be no Authority or Reason to the contrary. But the Question is, whether any Body can embrace an Opinion less probable when in Concurrence with one more probable? And afterwards, if a Doctor or Pastor when consulted, can answer, or give his Advice, according to his own Opinion, or that of another Doctor, which is less probable, or favours our Cupidity against the Law; but on the contrary, ought to follow the safest Way, and answer according to the Precepts of the Law, against the Cupidity? This last Opinion is that of the most eminent Theologians against those who stand for the *Probabilism*; for a Physician would be inexcusable, who neglecting the most secure and efficacious Remedies, should prescribe those which are only probable, and less secure.

If it be urged farther, that hence several Things are taken in general, and *speculatively*, either for true or false, of which notwithstanding we judge otherwise in the Practice; therefore it follows, that the Doctrine of *Probability* is not inutile; that the Severity of the Law may be mitigated by the various Interpretations of prudent Men. For Instance, Falshood in general is forbidden by the divine Laws; tho' several Cases occur, wherein that Law is to be soften'd by the Authority of eminent Divines; that Men may thereby be render'd capable of doing several good Offices; v. g. of saving the Reputation of some, or the Life or Fortune of others by officious Falshoods, or ambiguous Speeches, or Equivocations, or mental Reservations; which the *Priscillianists* pretended to be authorized by both the Old and New Testament; who,

according to *St. Augustin, Lib. de hæres. c. 70.* had always their Sentence in their Mouth;

Jura, perjura, secretum prodere noli.

And *Cassianus, Collat. 17. c. 17.* teaches, that it is licit to lye for a good End. Which Opinion was espoused by the *Semi-Pelagians*, and interpreted by them in their Manner, wherever they thought that their Reputation, or that of their Brethren, required a Lye.

To this I answer, in denying the Proposition; for though, sometimes, the general Laws are to be interpreted *in favorem*, they are not to be evaded by an uncertain Probability; but mitigated by a natural Equity, whereby Regard is had rather to the Spirit of the Law, than to the Words. For Instance, the natural Law commands, in general, that we should return every Body his own, though we are not oblig'd to return his Sword to one that's drunk or furious; because the same immutable Reason which commands to return every one his own, forbids the returning a Sword to one that's drunk or furious, for fear he should lay violent Hands on himself or others.

As to what relates to Falshood, it must be banish'd, not only speculatively, but likewise to Practice, from among us, as a Plague to Society; since it is much abhorred, even by *Homer*, in the Person of *Achilles*, *Iliad, 9. v. 312.* as the Gates of Hell.

*Haud minus ille mihi exosus, quam jamua Ditis,
Mens aliud cui testis premit, quam lingua loquatur.*

St. Augustin has very well refuted the *Priscillianists*, in his Book *de mendacio*, and much more in that *contra mendacium*. Those Partisans of Falshood, followed the Error of *Origen*, and of some *Egyptian* Anchorets, which Error they had unjudiciously borrowed from the third Book of *Plato, de Republicâ*; and which the *Priscillianist* attempted in vain to confirm by Examples extracted from the antient Testament. For even *Plato*, who abhors Falshood as dangerous to a civil Society, permits it, notwithstanding, to him who governs the Republick in a single Case, viz. to prevent the entire Ruin of the Republick, which is prov'd by *Cassianus* and the other *Semi-Pelagians*, with great Vehemency. But the School of a *holy Ethick*, has Sentiments far more simple, and more sublime; when it forbids absolutely in all Cases, all Sorts of Falshoods, all Fiction or Dissimulation, or mental Reservation; whereby Men may be deceived, and the Christian Candour offended. For it is thus commanded, *Exod. xx. 16. Thou shalt not bear false witness against thy Neighbour*, whereby all Falshood, all Fraud, all Artifice, either in Word or Deed, is forbidden; as it appears by other Testimonies; for we read, *Wisdom i. 11. That the Mouth which utters Falshood, kills the Soul.* And *Psalms v. 6. Thou shalt destroy them that speak Falshood.*

But as the Law is certain, if we find that some Persons, even eminent for their Virtue or Sanctity, have done something against it, we must judge of them according to the Law, but not infringe the Law on that Account. This was the Conduct of *St. Augustin* against the *Priscillianists*, who used to produce several Examples of Falshood, extracted from the Books of the Old Testament. *When we read those Things in the Scripture*, says he, *Lib. cont. mend. c. 9. We must not believe that we must do the same, because we believe it has been done; that we may not transgress the Precepts, while we follow the Examples. What because David had sworn that he would destroy Nabal, and has not done it by a Principle of Clemency, must we imitate him, and swear that we'll do, what afterwards we'll find ought not to be done?*

Therefore we must observe this Rule, that if what we read in the Scripture be really a Falshood, it is not proposed there to us as worthy of Imitation; but it happens sometimes, that what is believed a Falshood, is not really such, if well understood; and this happens particularly in two Manners.

First, When something of the Truth is hidden from us, and nothing false is alledged.

Secondly, When what is done or said, it not to be considered absolutely and in itself, but only as it is the Sign or Figure of another Thing. Therefore, those Figures which occur in the Old Testament, though at the first Sight they seem to contain Falshood, when well understood, they do not contain a Falshood, but a Mystery; therefore we are not to draw Conclusions from them, to authorise, or excuse Falshood in the common Practice.

As to what regards the Midwives of the Hebrews, mentioned *Exod. i.* and *Rahab* of *Jericho*, we must confess that they told Lyes; not with the Design to deceive, but through a Principle of Compassion. Whence when they are said to have received their Reward, *St. Augustin* answers in the same Book, *de mend. c. 15.* *That they had not received it because they had told a Lye, but because they had us'd Compassion towards the People of God; and therefore it was not their Deceit which was rewarded, but their Benevolency, the Benignity of the Mind, and not the Iniquity of the Lyar.*

In these Cases we must follow the Example which the same Doctor proposes, *Lib. de mend. c. 13.* of *Firmus*, Bishop of *Thagast*, who, when asked by the Apparitors sent by the Emperor, about a Man whom he took all the Care imaginable to hide; answered, that he could neither tell a Lye, nor deliver the Man, and stood firm in his Resolution, notwithstanding the Torments he was made to suffer; and being afterwards carried before the Emperor, his Conduct appear'd so marvellous to that Prince, that he obtained without Difficulty, the Pardon of that Man whom he had hid.

But however, there are some very difficult Occasions, where the human Infirmary fails, unless it be powerfully sustained by the Grace of God. Of which *St. Augustin* himself was persuaded, for in the Book above-mentioned, *cont. mend. c. 18.* he says, *but because we are Men and live among Men, I confess that I am not of the Number of those, who are not disturbed by compensative Sins (i. e. those Actions which seem to have something good, for a Compensation of what they have bad) For I am often conquered by Sentiments of Humanity; neither can I resist, when it is said to me, that a Man is afflicted with a dangerous Malady; who runs to the greatest Danger, if the News of the Death of his only Son, whom he loves tenderly, be brought to him, he asks you if his Son lives, whom you know to have departed this Life, what may you answer, since whatever you may say besides one of these three Things, that he is dead, or is alive, or you know nothing of it, he believes nothing but that he is dead, which he knows you are afraid to tell, and that you are unwilling to tell a Lye? It would be as well if you was to say nothing. Of these three, two are false, he lives, and I don't know; nor can be said by you, without telling a Lye; and if you tell that only true one, he is dead, and the Person to whom you tell it, falls into Convulsions and dye, it will be said that you have killed him. And who will bear exaggerating Men, since it is as bad to avoid an officious Lye, as to avoid the murdering Truth? Those Oppositions move me much, and it is very well if they do wisely. For it will not be a Murder, and an Act of Chastity, if a Prostitute burning with Lust, having asked a Favour of you, and you have refused her, die of the Disappointment. It will happen — that if we were to grant it to be licit to tell a Lye, to save the Life of that sick Person, that such Toleration would introduce by Degrees, that Practice of officious Lyes, into a civil Society, so as to render it at last a necessary Custom; and to be almost impossible for us to come afterwards at the Knowledge of the Truth. Whence it is prudently wrote, *qui spernit modica paulatim decidit.* But there are some so much enamoured with this transitory Life, that they would have a Man not tell a Lye only, but even forswear himself to save another's Life, and even imagine Rules, and appoint Ends, when he is, and when he is not to forswear himself. O! where are you Fountains of Tears? what shall we do? where shall we go? where shall we hide ourselves from the Wrath of*

the Truth, since we not only neglect to avoid Lyes, but have even the Temerity to teach Perjury.

The next Thing we are to do, is to enquire if the Affections of the Soul, are subject to the Precepts of a moral Discipline, and which is their Use.

The Government of the Passions, or of the Affections of the Soul, makes a considerable Article in the moral Discipline, and is represented as such by *Aristotle*, *Lib. 2. Ethic.* but before I can treat as I ought to do on this important Subject, I must endeavour to determine that famous Controversy, carried on with so much Heat, between the *Peripateticians* and the *Stoicks*, whether the Affections of the Soul are bad of their Nature, as the *Stoicks* pretended, or if they can be subjected to the Rules of a moral Discipline, as believed by the *Peripateticians*? For if all the Affections are so bad of their Nature, that they must be entirely extirpated from the Mind, in vain the *Ethick* should prescribe Rules for their Government; for what is bad of itself, cannot be reform'd by the Rules of the *Ethick*.

This Dispute was rather of Name, as it happens often, than of Fact. For by the Name *Affections*, the *Stoicks* understood only the Perturbations, or Diseases of the Mind, called immoderate Affections; which every Body knows to be bad Affections. But the *Peripateticians* understood by that Name, all the Motions of the Soul, which could be brought under the Direction of Reason.

Therefore as the Opinion of the *Peripateticians*, is more agreeable to the Notions we conceive of those Affections, and is better adapted to the common Way of Speaking, than that of the *Stoicians*; I'll say with the *Peripateticians* against the *Stoicks*, that all the Affections of the Soul are not bad of their own Nature, and consequently are not to be extirpated, but only govern'd and brought within the Limits of Reason; and that a wise and honest Man can be subject to them; because they can direct us towards a right End, and incline us towards doing Good. For Example, Love, Delectation, Cupidity, Fear, and all the other Affections, can direct us towards a good End, and engage us to act honestly.

Besides, the Affections of the Soul, are often given to spur Mankind to act with Courage, and therefore, far from being bad, they are even necessary. For Example, Admiration causes Curiosity, or the Desire of discovering something, which is very conducive towards the Acquisition of Knowledge; but however, that Desire must be confin'd within certain Limits; for it is not licit for us to spend our Time, in the Examination or Consideration of vain and useless Things, or in endeavouring to discover the most sublime Mysteries. *Altiora te ne quaesieris*, says *Solomon*, *Ecclef. iii. 22.* *Et fortiora te ne scrutatus fueris; sed quae praecepit tibi Deus illa cogita semper, Et in pluribus operibus ejus ne fueris curiosus.* The same Thing may be said of Wrath, for he who is not in a Passion, when it is necessary, is thought despicable; for says *St. Gregory*, *Lib. 5. moral. in Job iii.* *Other is the Wrath which proceeds from Impatience, and other is that proceeding from a Zeal of Justice; that is vicious, and this is virtuous.* Whence *Jesus Christ* did put himself in a Passion against the Merchants in the Temple, and has been subject to the other Affections of the Soul, as Occasion requir'd it, viz. to Sorrow, Fear, &c.

Besides, how could those Affections be bad, which can be reduced to an honest Mediocrity, as we have observed already, of Admiration, the Desire of Knowledge, and of Wrath; likewise, Boldness and Fear can be the Foundation of Courage, Prodigality and Avarice that of Liberality, &c. Therefore, says *Lactantius*, *Lib. 6. divin. instit. c. 15.* *If Virtue is to refrain our Appetite from desiring what is not ours, certainly he cannot have any Virtue, who wants to refrain that, which to the Use of Virtue is applied, viz. Cupidity, which is a Passion or Affection of the Soul, and which can be moderated by our Reason; though what is called Sensuality or Lust, is always an immoderate Cupidity, as Envy is an immoderate Emulation.* Therefore, without the Affections of the Soul, there would

would be scarce any Virtue, and consequently they are not to be all entirely extirpated; but are to be governed by Reason, and reduced to a just Mediocrity.

If it be objected, first, that the *Concupiscence* (which is an Affection of the Soul, or rather the Source of all other Affections) is called by the Name of Sin, and consequently is itself a Sin: I'll answer, that the Concupiscence is called by the Name of Sin, inasmuch as it proceeds from Sin, and inclines us to Sin; but not as being in itself a Sin; for it cannot become a Sin, but with the Consent of the Will, tho' the Concupiscence, or the Motion of the Concupiscence solicits us to sin.

The same Objection could also be answered in this Manner, that every Affection of the Soul is *Concupiscence*, if by Concupiscence we understand every Motion of the sensitive Appetite; but not if we understand by Concupiscence, the Sensuality, or the effrenate Motion of the sensitive Appetite. Therefore the Affections of the Soul can be called the Motions of the Concupiscence, provided we understand by Concupiscence nothing else, but the Motions of the sensitive Appetite. But the sensitive Appetite (which is nothing in Man but the rational Soul, as far as directed occasionally, by the Motions of the animal Spirits towards some corporeal and sensible Object) for then its Motion is good with regard to its Object, as Compassion, whereby one is moved to see an honest Man in Distress, is agreeable to Reason; or it inclines towards an Object morally indifferent, and then its Motion is also indifferent; or lastly, it tends towards an Object morally bad, and then its Motion is bad according to its Species, as *Envy* and *Lust*. But as the Will can resist the Motions of the animal Spirits, hence it happens that such Motion is not a Sin, but when the Will consents to it.

If it be objected, secondly, with the Stoicks, that the Affection, or as they call it, the *Perturbation* of the Soul, is a *Commotion of the Soul against Nature, and averse to Reason*: For which Reason it is called a Disease of the Soul; which Commotion is consequently bad.

I'll answer, that the effrenate and immoderate Affection, called otherwise *Sensuality*, is a Disease of the Soul, contrary to Nature; but not a moderate Affection, and governed by Reason. Therefore the Affection in itself is often neither good nor bad; but it becomes good when, directed by Reason, and bad, when not under that Direction. Thus *Emulation*, if it be to imitate Virtue only, as it is then governed by Reason, is to be admired; but if it proceeds from Jealousy, it would be an immoderate Affection, and consequently bad: Whence *Envy* is always immoderate and bad, because it exceeds the Limits of the Reason. Likewise the Name of Sensuality is often taken in a bad Sense; for it is according to *Tull. lib. 2. de invent. an Impetuosity of the Soul, which is not right*; whereby the Soul is not only joined with the Body, and all the Things which have any Report to the Preservation of that Body, but thereby it is in some measure subject to that Body. Therefore every Affection of the Soul is not Sensuality taken in that Sense; since any Body may make a good Use of some Affection of the Soul, but never of Sensuality, or effrenate Cupidity.

It can be urged farther, that the Affections of the Soul are not in our Power, and cannot be governed by Reason, and consequently are contrary to it. To which I answer, that they are not in our Power, with regard to the Motion of the animal Spirits; but are in our Power with regard to the Consent of our Will. For it cannot be supposed that our Reason commands all the corporeal Motions, so as to be capable to hinder them; for its Power over them is only *political*, and not *despotick*, as we have already observed: But it can notwithstanding, maintain its Assent; and by its Attention to turn insensibly the Motion towards another Object, diminishes it, while, as an occasional Cause, it excites in the Body a quite different Motion: Therefore the Affections of the Soul can be governed by Reason.

At present we must say something of the Use of

those Affections; since the Corruption of our Nature ever since the Sin of *Adam*, excites within us several involuntary Motions: But it must be confessed at the same Time, that it is in our Power, to consent or not consent to it; and to make use of them for a good End. In *Adam*, while in the State of Innocence, those Motions were not untractable as they are in us; because the inferior or corporeal Part was subject to the superior, which is the Soul: Though, mean while, the Motion of the Blood and of the animal Spirits, could give him Occasion to consent to Evil; because his Will was not immutably confirmed in Good, as it is in the Blessed in Heaven: But that could happen gently, and without inordinate Motion. *Christ* our Lord and Saviour, who was both Traveller and Comprehenor, and whose Humanity was hypostatally joined with the divine Word, has felt within him no Motion of the Affections, but those he would suffer; and consequently could not on any Account whatsoever, be inclined to Sin. But we who come into the World guilty of the original Sin, we feel continually the Rebellion of the Flesh, against the Spirit, are almost continually agitated by the Motions of the Affections, and inclined to Evil: Whence our most serious Occupation in this World, is to appease those rebellious Motions; that being brought thereby under the Direction of our Reason, we may make use of them, according to the Rules prescribed by the *Ethicks*, to gain the End proposed to us.

Therefore the right Use of our Affections, according to the Rules for moral Discipline, seems to consist either in that they are to be directed by Reason, or employed in pursuing Good, and avoiding Evil, with respect to our temporal and eternal Felicity. For then they give us the Occasion; or of gaining a Peace and Tranquility of Mind, especially if our Reason refrains the inordinate Motions contrary to that Tranquility; or strengthen us in the Pursuit of Good, and our Flight from Evil.

The Object, towards which our Affections incline us, is either good or bad, or indifferent. If it be good, we must make use of that Affection, to be carried with a still greater Propensity towards that Object: If it be indifferent, we must borrow for it, some Goodness from the End proposed; and make use likewise of the same Affection wherewith we are inclined towards it, for its Acquisition. But if the Affection inclines us towards a bad Thing, *viz.* Blasphemy, Ebriety, Luxury, &c. In such Cases we must endeavour either to obstruct the Motion of the Spirit, or to incline it another Way. And this can easily be effected, considering the strict Union which subsist between that Motion of the Spirit, and our Understanding: For as often as we are agitated by such Affection, we must fix our Mind on a quite different Object; that thereby those Spirits which shake our Understanding, may take another Course; but notwithstanding we must not expect to gain so compleat a Victory over those Insults of the Body, as to bring them under a perfect Subjection; for it but too often happens, that when we believe them entirely at rest, they rage all on a sudden, with a greater Fury than they had hitherto done. Our Mind thus afflicted, and almost oppressed, would in vain confide in its proper Strength; which can do nothing in those Occasions unless it be assisted from above, which Assistance is never refused when earnestly desired, at the Example of the Apostle *St. Paul*, who says, *Epist. 2. Corint. xii. 7. 8, 9. There was given to me a Thorn in the Flesh; the Messenger of Satan to buffet me; lest I should be exalted above measure, for this Thing I besought the Lord thrice, that it might depart from me. And he said unto me, my Grace is sufficient for thee; for my Strength is made perfect in Weakness.*

Therefore besides the general Method derived from the Principles of a natural Science, there is another Manner much more efficacious of moderating our Affections, which is the Grace of God, and which consequently we are to ask incessantly in our Prayers. Notwithstanding which, we must not abandon the human

human Succours, *viz.* those which are to be acquired by Labour and Practice, and are called Virtues; and are most of them employed in the Government of our Affections; which leads me insensibly into the Consideration of those Virtues, and likewise of the Vices opposite to them.

They usually distinguish in the Schools two Sorts of Principles of the human Acts, *viz.* those which are *born with us*, and those which are *acquired*: Those have been granted to us by Nature, *viz.* Understanding and Will; and these are acquired by Application, and repeated Acts. And are good and ill Habits, or *Virtues* and *Vices*, of which I'll treat in this Place, as well in general as in particular; and first we must know what's Virtue and what's Vice.

Three Things are to be considered in the Soul, says *Aristotle*, *Lib. 2. Ethic. c. 4.* *viz.* its Thoughts and Motions, as Perception, Love, &c. afterwards the Faculties or natural Powers necessary to act or suffer, as the *Understanding* and *Will*. Lastly, the *Habits*, either good or bad, that's to say, which incline us either to Good or Evil. The good Habits are called Virtues, and the bad Vices.

I'll speak first of the Virtues infused, which are those infused into us by the Almighty without our Concurrency; such are the Virtues called theological, *viz.* *Faith*, *Hope*, and *Charity*. To these are joined, by a certain Tye of Affinity, the habitual and sanctifying Grace, the Gift of Perseverance, or the Grace of persevering in the Practice of Virtues, to the latter End of one's Life, the Gifts of the Holy Ghost, &c.

FAITH is a theological Virtue, divinely infused, whereby a created Soul consents or agrees, that all that God has revealed is true, though it be far above our Apprehension or Understanding. Whence the *material Object* of *Faith* is God; and the formal one, or the Manner, wherewith God is consider'd by *Faith*, is commonly expressed in these Words, *Inasmuch as God is the first Truth*; that is to say, as he cannot deceive or be deceived; and consequently he deserves the Consent of our Will, and the Subjection of our Understanding, in all those Things he proposes for Objects of our Faith; whence it appears, that our natural Knowledge of God, and even of our own Mind, precedes Faith: For if we were not to know that God is sovereignly true, and sovereignly potent, and that our Mind is much limited in its Conceptions, we could not easily subject ourselves to the Mysteries of Faith.

What we are to believe, is contained either in Words, Writings, or the Tradition; and proposed to us, say the *Roman Catholicks*, by the universal Church, which is the Column of Truth: So that what we hope sometimes to see, are in our Mind, by Faith; as if they were present. Whence the Apostle, *Heb. xi. 1.* *Est autem, fides sperandarum substantiarum rerum, argumentum non apparentium.* In the Greek it is *Hypostasis*, i. e. the Foundation and Base of those Things which are the Object of our Hopes; because it gives them a Subsistence in our Understanding, as if they were present, though they are not to be seen, but in Time to come; And therefore it is an *Argument*, or Conviction, or Demonstration of Things, which appears no otherwise, than it renders them present to our Mind.

HOPE, is a theological Virtue, which regards the sovereign Good as absent; and with a certain Confidence, that it is sometimes to be obtained or possessed. Or it is a Virtue divinely infused, whereby we expect, with a certain Confidence, our Salvation, or eternal Felicity; its *material Object*, is also God; and its formal Object, is expressed in these Terms, *inasmuch as God is to be obtained or possessed in Time to come*: Therefore *Hope* includes the Desire of an absent Good; and without that Desire there would be no Hope.

CHARITY, is a theological Virtue, whereby God is beloved above all Things; and for himself, or for his supreme Goodness; and all the other Things for God. For this is the Order of Love, that the supreme Good should be beloved for himself, and all other

Things for him; and as that Order, when it invites us by its Beauty, is nothing else but God himself; Charity is nothing else, likewise, but a supernatural Love of the Order, whereby God is beloved for himself, because he is sovereignly Good; and all other Things for him. By which Definition, it appears that the material Object of Charity is God himself; and the formal one is expressed in these Words, *as he is sovereignly Good*; or as he is the supreme Good, on which we must repose ourselves, and to which every Thing else is to be referr'd.

Therefore God's Goodness is the Reason which induces us to love him, i. e. his absolute Goodness, primarily, and afar off; and his relative Goodness, secondarily, and nearer: For, as says *St. Thomas*, 2. *quest. 26. art. 13. ad. 3.* If God was good only, absolutely and in himself, and not comparatively, with respect to us, he could not excite our Will to love him; for without some Enticement, our Will cannot be inclined to Love; as without an Impression of Light, there cannot be a Vision. Therefore God is not beloved by us in that Sense, that he is consider'd as perfect in himself; setting aside the Convenience he has with our Nature, whereby he gains us to him; for in that Manner, God could be esteemed, and much valued by us, but not beloved; for it seems that Love requires a certain Convenience between the Object that loves, and that which is beloved; whereby the Object that loves is attracted and excited to Love. Whence God does not seem to be beloved by us, but when considered relatively or comparatively to us, i. e. in as much as he gains us to himself; and inebriates our Mind with a certain Suavity, which supported the Martyrs in their Torments.

But nevertheless, the Act of Charity is distinguished from that of Hope, having both a different Motive. The Motive of the Act of Charity, or its formal Object, is God, as he is sovereignly Good, i. e. as by his supreme Goodness he gains us to himself, in such a Manner as we prefer him to all other Things, and refer them all to his Glory. But the Motive of the Act of Hope is God likewise, but only as we hope to possess him in the celestial Mansions.

The natural and acquired Virtues, are those acquir'd by repeated Acts, and these are called either intellectual, or moral.

Those are called intellectual Virtues, which promote the Knowledge of the Mind; and which, consequently, have a greater Relation to the Understanding; since Knowledge, or Perception, is the Office of the Understanding.

Aristotle, *Lib. 6. Ethic. c. 3.* reckons five of these habitual Virtues, *viz.* Intelligence, Sapience, Science, Prudence, and Art.

Several after *Aristotle*, define SAPIENCE, a certain sublime Science, or a Knowledge of sublime Things.

INTELLIGENCE, is the Knowledge of the first Principles, or most common Actions, which is not so much a new Habit of the Mind, as it is the Mind itself, naturally consider'd. For the Mind, by the sole Dictates of Nature, perceives and embraces the common Notions, or Actions; such as these, *it is impossible to be, and not to be, at one and the same Time.* The whole is greater than Part thereof, &c.

The Name of Sapience, is to be taken in two Manners, *viz.* either for a Collection of all Sorts of Sciences, or for the Knowledge of all Things, as well universal as sublime.

SCIENCE, is commonly defin'd, a true, certain, and evident Knowledge of every Thing necessary, and immutable, for the true and proper Causes for which it is such; or for which it is constantly affirm'd or denied that it is such.

It is first said a Knowledge, or Cognition, not actual as they speak, but habitual, i. e. the Facility of Knowing, not the Act or Motion of him that knows. For the Science of a Thing, remains even in a Person while asleep, and not at all thinking of that Thing; provided he has before rendered himself perfect in that Knowledge, by his assiduous Application and Study; that

that he may understand it when he reflects on it. This is as a Reward which God gives to our Industry, that those Things, the Knowledge whereof we have acquired by a long and laborious Study, may be again revealed to us, and subjected to our Understanding, (himself irradiating our Mind) as often as we are pleased to reflect on them. *Science* differs both from the Ignorance, called of *Privation*, and which is the Privation of that Knowledge we should be instructed in, viz. of our Duties; and from Ignorance, of a depraved Disposition, which is join'd with Error. But our *Science* being limited, does not exclude from us the Ignorance of pure Negation, whereby we are ignorant of several Things which we are not obliged to know; or the Knowledge whereof, God in his great Wisdom has been pleased to hide from us; v. g. no Body is obliged to know if the Number of the Sands of the Sea, be even or uneven.

Secondly, It is a true Knowledge, not of all Things indifferently, but of a necessary Thing, or of a Thing which cannot be otherwise. Thus he who knows that the Eclipse of the Moon, happens from the Interposition of the Earth between the Sun and the Moon, knows a Thing which cannot be otherwise; for it is impossible that the Moon should not suffer an Eclipse, by the Interposition of so opaque a Body as is the Earth, between her and the Sun, from which she borrows her whole Light. In which, *Science* is distinguished from Prudence and Art, which are employ'd about Things contingent, as well as about those which are necessary.

Science, is besides a *Cognition or Knowledge of a Thing by its Causes, or the Reason why that Thing is; or else for which it is affirmed or denied to be so.* Whereby it is evident, that *Science* is not a bare Perception of a Thing, or to speak the Language of the Schools, an Apprehension, without Affirmation or Negation; but a Knowledge acquired by Ratiocination, and consequently joined with the Judgment, or also a Collection of several Perceptions and Judgments. However, *Science*, besides the Perception of the Understanding, which is passive, includes the Assent of the Will, or the Judgment which is active. For we do not only conceive a Thing by Means of the Sciences, but affirm, besides, that what we conceive, is such as we conceive it.

Science is also a sure Knowledge, i. e. firm, permanent, and supported by certain immutable Arguments; to distinguish from Opinion, which is uncertain.

Lastly, it is an evident Knowledge, i. e. manifest and perspicuous, or established on clear and evident Principles, to distinguish it from Faith; which is true and certain, but dark. Thus it is true and certain that in the blessed Trinity there is one Nature and three Persons, but that is obscure, and known by the sole Authority of God who has revealed it, and not by an evident Reason.

It is observed here, that in this Definition, the more general Terms are preferr'd to those which are less general. For *true* is more general than *certain*, and *certain* more general than *evident*; for what is *evident* is *certain*, and what is *certain* is *true*, but not interchangeably. This must be observed, likewise, that *Truth* is agreeable both to the Idea, and to Judgment; *Certainty* to Judgment, rather than to Idea; and that Evidence is to be attributed, neither to Idea nor to Judgment; though they be all three agreeable to *Science*: Because *Science* includes the Perception of the Understanding, Judgment, Approbation, or Assent of the Will.

Prudence, as well as *Sapience*, or Wisdom, is taken in two Senses, viz. either for *Science*, or general Knowledge of Things, which pertains to Life and Manners, and this is called a *general Prudence*; or for the practical and efficacious Knowledge of those Things, which on all Occasions are to be acted by an honest Man, and is called *particular Prudence*, or Cardinal Virtue, of which I'll speak by and by.

Lastly, *Art*, is the *practical Knowledge of Things*

which can be accomplished by Industry; which consists of two Parts, the first and superior Part of *Art*, is the Knowledge of the Mind; if it be either Intelligence only, or Science: The second and inferior; is the Execution, or Work of the Artist. Though *Aristotle*, *Lib. 6. Ethic. c. 4.* makes a Difference between what is called *effectio*, and Action, or Practice, that *Præctica* is a moral Action, in which the Intention of the Person that acts, is considered comparatively to a moral Honesty; and *Effectio*, is any Operation, in which the Industry or Skill of the Person who acts is considered. In which Sense the *Effectio* is good, while the *Action* is bad; as when a Person robs another of his Purse with great Dexterity; and the *Action* good, while the *Effectio* is bad, as it happens in a Mother, who to save her Son from an imminent Danger, suffocates him.

Moral Virtues, are those which incline our Will to a moral Good, which the infused Virtues do; as well as the moral ones. Therefore, *Virtue*, generally speaking, is very well defin'd by St. *Augustin*, *Lib. octogint. quest. 31. an Habit of the Mind, agreeable to Nature and Reason*, i. e. inclining to act, what is placed in so just a Mediocrity, that it neither exceeds the just Limits of Reason and Order, nor falls short from it.

A *Virtue*, or good Habit of what Kind soever, consists of two Parts, one *superior*, which commands and governs, and the other *inferior*, which serves and obeys.

The superior Part of *Virtue*, is that *Affection or Disposition of the Mind*, which follows every where an honest Temperament, with Regard to the Person that acts, the Place, the Time, and all the Circumstances: For the same Things do not become every one, nor the same Things become the same Person at all Times; for Example, a Meal which may be esteemed frugal for a Prince, may be considered as profuse, with respect to a private Person. And among private Persons, a rich Man is esteemed liberal, who treats his Friends in a splendid elegant Manner, when as one of a narrower Fortune, who attempts to do the same, is taxed of Prodigality.

*Atticus eximie si cœnat, lautus habetur:
Si Rutilus, demens.*

Likewise, the same Man must alter his Manner of Living, according to the Difference of his Condition; Age, Fortune, and Rank. This superior Part of *Virtue*, can be consider'd as its Soul, or rather, is the *Virtue* itself; for that Part alone prescribes a regular Conduct, Love, and Continence, a just Economy, and a good Order. The Author of the Enquiry after Truth, defines *Virtue*, 1 part. tract. moral. c. 2, 3. the Love of Order, or the constant and habitual Love of Order: Which Love in a Man, truly Christian and Just, is that Charity whereby God is beloved above all Things, and for himself, and all other Things for him. Therefore St. *Augustin*, *Lib. 4. cont. Julian. c. 3.* teaches, that there is no true *Virtue* without Charity; because without Charity there is no true Order of Love, or true Love of Order; whereby God is preferred to all created Beings. St. *Thomas* says, after St. *Ambrose*, that Charity is the Form of *Virtue*, because virtuous Acts are thereby directed to their chief End. Whence it follows, that the *Virtues* of the Pagans, have always been lame and imperfect; because as they wanted Charity, they could not love God above all Things.

The inferior Part of *Virtue*, is the Facility of acting; which is placed entirely in the Impressions received in the Brain, in the Determination of the animal Spirits; and in the other Dispositions of the Body, and consequently is corporeal.

This inferior Part may be considered as the Body of *Virtue*, since it is this Part that operates, or acts; v. g. he that has the *Virtue of Temperance*, this through an Inclination to Order, moderates the Sensuality of the Taste and Touch; and has acquired to him by a long Use and often repeated Acts, the Facility of restraining his Appetite. And that Facility, which has its Seat in the Body, is rather an Act of *Virtue*, than *Virtue* itself.

self. Because without the least Inclination for a good Order, any Body may acquire the Facility of practising some Acts of Temperance, viz. when he refrains his Appetite through Infirmary, or to avoid Sickness, or for any other Cause: And likewise, he can have the Virtue of Temperance, or a constant Love for Order in the Object of Temperance, tho' he cannot very well practise the Acts of Temperance.

But Men confound often Virtue itself, with the Acts of Virtues, which is the Cause of that long Dispute between the *Thomists* and *Scotists*, as well about the Essence of Virtue, as about the Object on which it is fixed. For if we distinguish the *Virtue* from the *Act*, the *Thomists* have Reason to say that it is an Habit good of its Nature, and is received in the Mind as in its Subject. Therefore *Virtue*, properly taken, is an habitual Love of Order, or is a firm and constant Love of an honest Mediocrity, directed in every Subject by right Reason. Which Love exists in the Mind, as in its Subject; and so good of its Nature that it can never be bad. This Love it not different in an honest Christian, from Charity itself.

But if we take with the *Scotists*, the Acts of Virtue, or the Facility of acting, for *Virtue* itself, that Facility may be applied to a bad Use; as for Instance, when any Body fasts, or practises any other Act of *Virtue* thro' Vain-glory. Therefore the inferior Part of *Virtue*, or the Facility of acting (setting aside the Love of Order) cannot be said an *Habit essentially good*; because it can incline to those Acts, which are not so well placed in a Medium, but that they may recede from right Reason, or Order. When I mention the Acts of *Virtue*, placed in a Medium, I understand the Medium of Reason, not of the Thing.

The Medium of a Thing is defined by *Aristotle*, *Lib. 2. Ethic. c. 5.* that which is equally distant from the Extremities, and is every where, and always the same, as 6 is the Medium between 10 and 2. Because the Number 6, is equal distant from the Number 10 and 2, viz. of four Units. This Medium, for Reasons hereafter mentioned, is called by *Aristotle*, *Arithmetical Medium*.

The Medium of Reason, or Geometrical, is that which is prescribed by Reason, and thereby is determined, what, where, and how Things are to be done. And this Medium is not only considered in Actions, but likewise in the Affections of the Soul. For to fear, v. g. or to wish, is a good Thing, provided it be done with all the Conditions above-mentioned. And this is the principal Office of Virtue, to place that Mediocrity regulated by Reason, in the Affections of the Mind, as well as in the Acts of the Will; therefore, if any Body deviates from that Mediocrity, either by exceeding its Limits, or by falling short from them, he falls into a moral Vice; which moral Vice, is an ill Habit inclining to bad Actions, i. e. to those Actions, deviating through Excess, or Defect, from right Reason or Order, these Acts are also called *Sins*, of which hereafter.

The next Thing which falls under our Consideration, is the Division of the moral Virtues.

If *Virtue* can be considered as nothing else but an habitual Love of Order, or a firm and constant Love of an honest Mediocrity, govern'd, or directed in any Subject, by right Reason. There is certainly a general Virtue, which for the different Reasons, or Manners, by which Order is preserved in different material Objects, can be divided into different Kinds; and is in Fact, divided into *Cardinal Virtues*, i. e. those which ought to give Motion to, or influence all the Actions of our Life; and in *adjunct*, or *concomitant*, which flow from the *Cardinals*, and are referr'd to them.

We commonly reckon four *Cardinal Virtues*, viz. Prudence, Justice, Fortitude, and Temperance. This Number is asserted by the Authority of several divine Writers: And first, *Wisd. viii. 7.* For the Wise teaches Sobriety, i. e. Temperance and Prudence, Justice and Virtue, i. e. Fortitude; nothing in Life being more useful to Mankind. *St. Ambrose*, in caput 6. *Evang. Luc.* We know, says he, that there are four Cardinal

Virtues, Temperance, Justice, Prudence, and Fortitude. And *St. Augustin*, in *Psalm lxxxiii. 8.* Several, says he, reckon four Virtues, which are also found in the Scripture, which should influence our Actions. That is called Prudence, whereby we are rendered capable to make a Difference between good and bad. Justice, that whereby we give every Body his own, owing nothing, and loving every Body. Temperance, whereby we refrain our Sensuality: And Fortitude, whereby we suffer every Thing with Patience.

Among the profane Authors, (to say nothing of *Plato*, *Aristotle*, &c.) *Cicero* enumerated those four Virtues, *Lib. 1. de officiis.* All that's honest, says he, proceeds from some of these four Parts; for it is either employ'd in the Consideration of the Truth, or in securing the good Order in a civil Society, by promoting and countenancing the distributive Justice, and encouraging Probity; or in supporting Magnanimity and Courage; or preserving a good Order, or a just Subordination, in which consists Modesty and Temperance.

The other Virtues which the same *Tully* calls concomitant, admit of three Distinctions, according to *St. Thomas*, 2. 2. *quest. 4.* for some are subject to a Cardinal Virtue, as a Species, and therefore are called the subjective Parts of a Cardinal Virtue: Others, without which a Cardinal Virtue cannot be esteemed entire, as the human Body cannot be esteemed entire with its Members; those Parts are called *integral*, or *integral*; and lastly, others which serve for Faculties and Powers to those same Cardinal Virtues, and for that Reason are called *potential Parts*.

Those Virtues, either Cardinal or Adjunct, are so well united together, that none of them can be obtained in a perfect State, without the others: For a perfect Virtue being a firm and constant Love of Order, that Love includes all Virtues, or rather is but one and the same Virtue, which to be perfect, requires a perfect Will to pursue what is right and just in every Subject: For that Man, v. g. is not perfectly just, who wants Fortitude, or Temperance, or Liberality, i. e. if he wants the Love of Order, or the Subject of Temperance, or of Liberality, or of Fortitude; an intemperate Judge, for Example, can be tempted by Pleasure, an avaricious one corrupted by Money, and a pusillanimous one frightened by Menaces. Likewise, no Body can obtain Temperance in a perfect State, without Prudence, and the other Virtues.

Therefore one Virtue cannot be perfect in a Subject, but in Society with all the others. I say that it cannot be perfect without the others, for it can be imperfect without them; since we commonly distinguish after *Aristotle*, *Lib. 7. Ethic. c. 1.* three different States of *Virtue*, viz. the imperfect State, called the State of Continence; the middle State, called the State of Temperance; and lastly, the perfect State, called the heroic.

The imperfect State of *Virtue*, is that in which one is agitated by the Motions of his Affections, to which he resists, though with a certain Reluctancy; and this State is that of the Beginners, who are not yet confirm'd in Virtue. To which State is opposed that of Infirmary, or Incontinence, in which he is not yet abandoned to Vice, and entirely reprobate, but is conquered by Concupiscence, though he faintly resists it.

The middle State of *Virtue*, is that in which one is so confirm'd in Goodness, that though he be tempted by his Concupiscence, he notwithstanding resists to it the easier, because he has made a long Practice of that Resistance; and this State is that of those who make a Progress in Virtue. To which is opposed the State of Perversity, or Malice, in which he is so used to Vice, that he seldom resists it.

Lastly, the State of Perfection of *Virtue*, or the heroic, is that whereby the Affections are so well conquered, that they cannot make the least Impression on *Virtue*; which State is that of the Perfect. To which is opposed the State of Brutality, whereby one is brought so much beneath the common Condition, even of the weakest, that he in some Measure degenerates to that of the Brutes; which State is commonly called

called the State of *Obdurateness*, of *Blindness*, and of *Pharaoh*. In both States, *viz.* the middle State, and the perfect, but more particularly in the perfect, or heroical, all the other Virtues, either cardinal or concomitant, are united together; but not in the imperfect State.

I must at present, speak of each *moral Virtue* in particular, that every *moral Virtue*, their Adjuncts, or as St. Thomas calls them, their potential and integrant Parts, be united.

I'll begin by *Prudence*, which *Plato* often confounds with *Sapience* or Wisdom, and takes them both, either for the Knowledge of the supreme Good, or for the Means to come at it. But *Aristotle* makes such Difference between them, *Lib. 6. Ethic. c. 5*, and 7, that in his Opinion, *Sapience* is the Science of sublime Things, or a Collection of all the Parts of Philosophy; and *Prudence* the Manner of acting. Therefore, the same Author defines *Prudence*, *Lib. 6. Ethic. c. 5. An Habit acting in Concert with right Reason, in those Things which are either good or bad, with Respect to Man*, i. e. an Habit whereby we know, not only what must be done or avoided, but likewise, whereby we love to act, and act what is to be acted, and abstain from what is to be avoided, because Order requires it.

Acting, however, and *effecting*, are distinguish'd by *Aristotle*, so that the one regards *Prudence*, and the other *Art*; in the Action is considered the Intention of the Person who acts, and in the *Effect*, his Industry.

In the same Sense, *Prudence* is defin'd by *Cicero*, *Lib. 2. de invent. the Science of good and bad Things, and of both*. And by St. *Augustin*, *Lib. 1. de Liber. arbit. c. 13. the Science of Things to be desired, and to be avoided*. In which Definitions, the Term *Science* is to be taken, either in a wider or stricter Sense; as those Definitions are understood, either of the general, or of the particular *Prudence*. For if thereby is understood a general *Prudence*, i. e. that *Prudence* whereby Men know generally what they ought to do, though very often they don't do it; which is the Case of those who say, and not do, (a Vice very common among Courtiers, as well as among our modern *Pharisees*) then the Term *Science*, is properly and strictly taken, *viz.* for the certain and evident Knowledge of Things immutable, and by immutable Reasons; therefore, what is good *morally*, or is agreeable to Order and right Reason, cannot be *morally* bad; nor what is bad *morally*, cannot be good *morally*. Whence the Things to be done or avoided, generally taken, can be said an immutable Object; and the general *Prudence* which considers them, is truly a practical Science, or the *Ethick* itself, which teaches what is right, and what is wrong, what is to be desired, and what is to be rejected; and can even be found in those who make no Profession of Honesty.

But if thereby the *particular Prudence* is understood, i. e. that Cardinal Virtue, whereof we treat at present, and whereby we don't only know in general, what Order prescribes to be done, but likewise conform our Actions to that Order, prompted to it by our constant Love for Order, which is foreign to a Person who makes no Profession of Probity: There the Term *Science*, is not to be taken in a strict and scholastick Sense, *viz.* for a strict and evident Knowledge of Things, immutable by their Causes; but in a wider Sense, *viz.* for the Knowledge of that, which on every Occasion is to be acted or avoided. For as the particular or special *Prudence*, which directs our Will in every Action, considers particular Things, it may also be called the Knowledge of Things contingent, or precarious; because the Change of Things, and of Circumstances, must cause also an Alteration in our Actions. And in this, the *Prudence* agrees with *Art*, which has also for Object the Things contingent.

Prudence, notwithstanding, differs from *Art*, according to *Aristotle*, in that this is employ'd towards the *Operations*, and that towards the *Actions*. Besides, by *Prudence* a Man becomes good *simply*, and by *Art*

good with *Addition*, *viz.* a good Artift. Whence if any Body, knowing and willing sins against *Prudence*, he is called *very bad*; but if an Artift, knowing and willing sins against the Rules of his Art, he remains a good Artift; because only an ignorant, and unexperienced Artift, sins against the Rules of his Art, unwilling.

We commonly reckon after *Aristotle*, and St. *Thomas*, three potential Parts, or three Offices of *Prudence*, *viz.* to *consult well*, to *judge right*, and to *reduce into Practice*, what has been judged or decreed.

St. *Thomas*, 2. *quæst.* 48. mentions eight integrant Parts of *Prudence*, and has taken them in Part from *Aristotle*, *lib. 6. Ethic. c. 10, 11, and 12*. in Part from *Tully*, *lib. 2. de invent.* in Part from *Macrobius*, *lib. 1. in somn. Scipion. c. 8.* or also from St. *Augustin*, *lib. 83. quæst. 31.* where he has transcribed *Cicero* Word for Word. And those integrant Parts are these, *Memory*, *Intelligence*, *Forefight*, *Reason*, *Docility*, *Dexterity* (to which must be added *Sagacity*) *Circumspection*, and *Caution*.

Therefore, to render the *Prudence perfect*, is necessary, 1. *Memory*, i. e. the Remembrance of Things past 2. *Intelligence*, i. e. the Knowledge of Things present. 3. *Forefight*, i. e. the Presence of Things to come. 4. *Reason*, i. e. the Facility of collecting what is to be done from the Things past, present, and to come. 5. *Docility*, or a good Disposition of Mind to take and follow the Advice and Counsels of others. 6. *Sagacity*, and *Dexterity*, i. e. an easy Apprehension, and Application of the Means conducive to the End; for *Sagacity* finds, and *Dexterity* executes happily. 7. *Circumspection*, or a serious Consideration of all the Circumstances. 8. *Caution*, or Care or Solitude, to avoid all that could be an Obstacle to the Undertaking.

The *Species* or Kinds of *Prudence*, are the *Prudence* wherewith we govern ourselves, and the *Prudence* wherewith we govern others. And this last Sort of *Prudence* is again divided into other Kinds; for it is either *economical*, whereby a Family is governed; or political, whereby a City or Republick is governed: But these *Species* do not differ among themselves, with Regard to their Principles, *viz.* to a Mind loving Order; but only with Regard to the Object it considers; and then they differ only with regard to the material Object, *viz.* with regard to what is acted in a Family, or a City; but not with regard to the formal Objects: Therefore those Acts are consider'd by an *economical* or political *Prudence*, inasmuch as they are to be conformable to the Rules of Honesty. Whence *Aristotle*, *lib. 6. Ethic. c. 8.* says, that the *Prudence* which we govern ourselves with, is the same as that with which we govern others; let it be either *economical*, or the Governess of a Family; or *political*, or Directress of a City; or *monothetical*, or Conditrice of Laws; or *dicaftical*, or Judge. But he observes, that the principal Kind of *Prudence*, is that wherewith we consider ourselves, and all that belong to us.

The Vices opposite to *Prudence*, wounds it either through Excess or Defect.

The *Vices* which affect *Prudence* through Excess, are, 1. The *Prudence of the Flesh*; which is employ'd in gratifying our sensual Appetites. 2. *A too great Solitude of the temporal Goods*; which proceeds either from an immoderate Desire of possessing them, or from an excessive Fear of losing them. 3. *Fraud*, or *Finesse*, or *Deceit*; which is concerting dangerous Measures to deceive others. When *Deceit* consists only in Words, it is call'd *Finesse*; and *Fraud*, when it proceeds to Facts: Though oftner *Deceit* and *Fraud* are indifferently taken for one and the same Thing.

The Vices opposite to *Prudence*, proceed very often from Ignorance; and therefore may be generally styl'd *Want of Prudence*: Of this there are several Kinds; *viz.* *Precipitation*, *Inconsideration*, *Inconstancy*, and *Negligence*.

Precipitation, is a Vice whereby any one undertakes something without a mature Deliberation; and this

this is opposite to Consultation.

Inconsideration, is a Vice, whereby a Judgment is given, or pronounced without the least Attention to the Means; and this opposite to a good Understanding or Intelligence.

Inconstancy, is changing one's Opinion, on any slight or frivolous Account.

Negligence, is a Want of Diligence, or Care in the Execution of our Affairs.

The Term *Justice*, is often taken in a wide Sense, viz. for Sanctity, or the Assemblage of all sorts of Virtues: Thus it is used in the sacred Scriptures, *Matth. i. 19. Joseph* is call'd *Just*, i. e. eminent in Sanctity.

The first Kind of Justice is commonly call'd *General Justice*, or *Legal Justice*; which contains all the Law, and all the other Virtues; according to *Aristotle's* Sentiment, *Lib. 5. Ethic. 3.* where he quotes this Verse of *Theognis*:

Iustitia in sese virtutes continet omnes.

But there is another Sort of Justice, call'd *particular* or *special*, which is that meant here, and the second among the Cardinal Virtues: And what is properly call'd the *distributive* Justice, whereby we give every one his own. This *Justice* is defined by the Emperor *Justinian*, at the Beginning of his Institutions of the Civil Law, or Right: *Constans & perpetua voluntas ius suum cuique tribuendi*, i. e. a constant and perpetual Will, to give every one his Due, or Right.

Right, is all that's just and equitable; or what is a Medium between two vicious Extreams: Therefore, those who contend or dispute for something, have Recourse to a Judge, as to a Divisor or Partitioner, who divides between them what they contend for, according to the Rules of Equity, and declares what Part belongs to every one.

Whence it may be infer'd that the *Talion*, or the *Pain of the Reciprocal*, as it is call'd in the *Theodosian Codex, Lex 3.* was not properly a Right, but only a Satisfaction for Damages done. For there is no Reparation made of the Damage done to a Man in breaking one of his Teeth, by breaking likewise the Tooth of the Person who has done him that Injury; but only whereby a Punishment is inflicted on the culpable: Therefore that *Lex Talionis*, mention'd by the Scripture, *Exod. xxi. 24.* which the Law of the twelve Tables had introduced among the *Romans*, became obsolete by Degrees; for the *Roman* Pretors permitted, afterwards, those who had received the Injury, to appretiate it; that the Judge, appointed by the Pretor, should fine the Offender in the Sum the Offended had been pleas'd to value his Injury at; or in a less Fine, as he should judge more proper.

The *special Justice*, which is the second among the Cardinal Virtues, is divided into *commutative*, and *distributive*, as into Species.

The *commutative Justice*, is that which keeps or maintains an Equality, in Commutations of Goods, in Contracts and Covenants.

The *distributive Justice*, is that which distributes Rewards, or Recompence, according to the Merit and Condition of Persons; and when it inflicts any Punishment, according to the Atrocity of the Crime, it is call'd *vindictive*.

Both establish a certain Equality: But in the *distributive Justice*, is observed a *geometrical Proportion*; and in the *commutative*, an *arithmetical one*. For when the *distributive Justice* is employ'd in distributing Recompences, or inflicting Punishments, it has not only Regard to the Merit, Recompence, or to the Pain, but likewise compares the Persons; for there is to be the same Difference between the Pains, or the Rewards, as there is between the Persons, or the Merits or Deserts; and therefore as much as a Captain surpasses a private Soldier in Rank or Dignity, so much greater must be his Recompence, when they have both equally done a brave Action.

But the *commutative Justice* wants a perfect Equality,

and has no Regard to Persons or to any other Circumstances. So that as much as the Thing deducted in the Commutation, or in the Contract, is worth; as much must be worth, the Price given for that Thing, without the least Regard to the Persons who change, or to the Manner they change in, or, which is the same, as much one Thing exceeds the other, as much must the Price of that one Thing surpass the Price of the other.

Therefore, if any Body neglects to observe the *Medium of the Regard*, in the *distributive Justice*; or the *Medium of the Thing*, in the *commutative*, he then wounds the Right itself, and violates the Law whereby that Right is established; unless some Cases happen, in which the natural Equity persuades to relent from the Rigour of the Law; for as the general Law cannot foresee all particular Cases; it must be, sometimes, tempered by the natural Equity. Hence *Aristotle, Lib. 5. Ethic. c. 14.* teaches, that all Things cannot be included in the Law, because of the infinite Variety of human Things; for the Rule or Law of an infinite Thing, must be infinite, and must be applied in a different Manner, according as the different Things occur; consulting always therein the Dictates of our Reason.

Aristotle asks, *Lib. 5. Ethic. c. 11.* if an Injury can be done to a Person who is willing? To which I answer, by this Distinction; that if *Injury* be taken for all *that is not just*, i. e. for all that violates the *Right*, or offend any Body, or in his own Person, or in his Family, or in his Fortune; certainly a Person may suffer an Injury, willingly, v. g. he can suffer to be vexed, to promote or procure Justice, or to be exposed to some Disadvantages for the Good of the Peace: And likewise a Husband can suffer the Adultery of his Wife, or through an Excess of Stupidity, or for Lucre. But if *Injury* be taken for Affront, or for the Fact which really offends a Person, as *Aristotle* seems to take it here, certainly none can be injured willingly, because no Body can love Evil as Evil.

Aristotle asks also, *c. 15.* of the same Book, if it be worse to receive an Injury than to do it? Which Question is easily answered: For he who does an Injury sins against *Justice*; and he who suffers an Injury, is free from Vice and Injustice; therefore it is better to suffer an Injury than to do it.

There are two integrant Parts of *Justice*, viz. to *abstain from Evil*, and to do Good; because those Parts are requisite for a perfect Act of Justice. But though this be true, those Parts are better reported to the legal Justice, or to Virtue in general, than to Justice taken in a strict Sense, which is the second of the cardinal Virtues; since without them there can be no perfect Act of Virtue. Which Sentiment is not very different from that of *St. Thomas*: But as the other Virtues, render a Man perfect in himself and for himself, and Justice be only *to another*; the same Doctor believes that it belongs to Justice, in a more particular Manner, to avoid Evil, and to do Good.

If you ask, whether it be always true, that Justice is to another? I'll answer, that Justice is always to *another*, or *physically*, or *morally*; it is to another, *physically*, when one returns to another what belongs to him: And it is to another *morally*, when he establishes a Law to himself, viz. when he absolves or condemns himself; for then he acts two Parts, that of Judge, and of Culpable: Which suffices to call it *Justice to another*.

There are, according to *St. Thomas, c. 2. quest. 80. art. 1.* eight potential Parts of Justice, whereby it performs its Operations, as if they were so many Faculties or Organs, viz. *Religion, Piety, Respect, Truth, Grace, Vindication, Liberality, and Amity*, to which they add *Affability*. Which are almost all taken from the second Book of *Cicero, de Inventione*.

Religion is that moral Virtue, which renders to God the *Culte* due to him, in confessing his supreme Power and Excellence. That *Culte*, or Worship, is rendred to God, or inwardly, i. e. by *Devotion and Meditation*, or outwardly, by Adoration, Vows, &c. but we must remember

remember here, that our Worship, that it may be acceptable to God, must be render'd to him through *Jesus Christ* our Lord; for no Body can be saved but in the Christian Religion.

Piety, according to *Cicero*, is a Virtue, whereby we acquit ourselves of our Duties to our Prince, to our Country, to our Parents, and to all our other Relations. *Piety* is also taken among Christians for Devotion.

Respect, from the same *Tully*, is that Part of Justice, whereby Men respect and reverence those who are above them, either by their Age, Wisdom, Honour, or Dignity.

Truth, or as some others call it *Veracity*, is a moral Virtue, whereby we take Care that nothing should be said but what really is, has been, or is to be.

Grace, otherwise *Gratitude*, is that which contains the Remembrance of past Services, or Kindnesses, and the Will of rewarding them.

Vindication, according to *Tully*, is a Virtue whereby we repel the Violence and Affronts offered to us, to ours, and all those who are dear to us, and whereby we punish Crimes. But though every one can hinder himself and his Friends from being injured or insulted; it must be observed with *St. Thomas*, 2. 2. *quest.* 108.

art. 1. that *Vindication* is not licit, but to those only, who are placed above the rest, to correct the Delinquents, or at least reprimand them, to procure, or maintain the publick Tranquility, and to countenance Justice. For it is not licit for a private Person to take Revenge of another, though *Cicero* endeavours to prove that it is a Right of Nature; but the Apostle *St. Paul* contradicts him, *Epist. Rom.* xx. 22.

Liberality, is defined by *Aristotle*, *Lib.* 4. *Ethic.* c. 1. a Virtue which keeps a Medium between giving and receiving Money. It is said to differ from *Benevolence*, in that *Benevolence* consists in the Distribution of all Sorts of Goods, and *Liberality*, only in that of Money.

Affability is a Virtue, whereby we study to behave ourselves in a civil Society, with that Freedom and Complaisance, which become us; to which are opposed, *Insolence*, *Haughtiness*, and *Morosity*.

Aristotle defines *Amity*, *Lib.* 8. *Ethic.* c. 2. an open mutual Benevolence, founded on some Good, either profitable, agreeable, or honest; but that only which is founded on the honest Good, deserves that Appellation, because it is a Part of Justice whereby we return Love for Love. Therefore, when according to the Rules of Justice, we return Love for Love, we do not love our Friends only to please ourselves, but likewise to please and oblige them. But those who consider but their own Profit in Friendship, are not Friends to others, but only consult their own Conveniency. For it is not loving our Friends sincerely, to take so much Pleasure in their Company or Conversation, as not to leave them even a Moment free, to mind their own private Affairs, but only consulting our own Satisfaction, and make others servily subservient to it; for we are not only to consider Pleasure and Profit in Friendship, though both agree very well with it, but Honesty, whereby Friendship is made a Part of Justice, and is rais'd to the Nature of Virtue, must take the first Place in it.

The Vice generally opposed to Justice, is Injustice, and which can offend Justice in different Manners, *viz.* either thro' *Excess* or *Defect*, tho' in both it retains the Name of *Injustice*.

Therefore, 1. The *distributive Justice* can be offended through Defect, either in the Distribution of Recompences, or of Pains; for if a Prince grants more Honour, more Glory, and greater Recompences to a Person than he really deserves, he sins, thro' *Excess*; if less, thro' *Defect*. Likewise, when greater Punishments are inflicted on the Guilty, than their Crime deserves, the *Excess* is in the Matter of the *vindictive Justice*, and is called Cruelty; if the Punishment is much more less than the Crime, it is a *Defect*, or a too great Indulgency.

2. *Excess* and *Defect*, have Place in the Matter of *commutative Justice*, *v. g.* when something is sold or

bought too dear, or when in Commutation of Goods, something is given or received besides the Principal; Justice is offended through *Excess*; if less is paid than received, then we deviate from Justice, through *Defect*. Whence *Justice* can be offended, not only thro' *Defect*, but likewise, through *Excess*, with Regard to its Matter, or as they call it, its material Object.

But however, *Excess* is not always a Vice, with Respect to Justice, *v. g.* when a rich Man, in an urgent Necessity, has borrowed something from one less rich; he can, in Gratification, return more than he has borrowed; but if he becomes prodigal in returning, *i. e.* if he returns much more than he has received, he offends, it is true, against Liberality, but not against Justice, no otherwise than Liberality is a potential Part of Justice.

Fortitude, is defin'd by *Aristotle*, *Lib.* 3. *Ethic.* c. 9. *A Mediocrity or Medium, between Temerity and Fear*; it can also be defin'd, *A Virtue between Temerity and Fear, in the Dangers our Reason commands us to encounter, or in supporting with Constancy, the Adversities*. Therefore, the material Subject of *Fortitude*, are the Perils we are to encounter, when our Reason requires it, *v. g.* in a just War, undertaken in the Defence of Religion, of our Prince, or of our Country; or the Adversities, which are either to be repelled where they assail, or supported with Constancy.

Therefore there are two opposite Acts in *Fortitude*; *viz.* to *encounter*, or admit the Peril when it is proper; and *support*, or suffer with an heroical Constancy, the greatest Adversities; both Acts must be entirely directed by right Reason, or the Love of Order. For we are not to attempt any Thing with a too great Temerity, nor fear it without Reason. But a brave Man must be always in a certain Medium between Temerity and Fear.

St. Thomas, 2. 2. *quest.* 128. *art.* 1. is of Opinion, that *Fortitude* has no potential Parts or Species, because confin'd within too narrow Limits; though he reckons, at the same Time, four integrant Parts of *Fortitude*, which can be called potential, *viz.* *Confidence*, *Magnificency*, *Patience*, and *Perseverance*. Which *Tullius* remembers also, *Lib.* 2. *de invent.* of these, *Confidence* and *Magnificency*, regard more particularly the *Aggression*, and *Patience* and *Perseverance*, the Act of Supporting; though every one of them seems to be agreeable to both Acts.

Therefore, *Confidence* can be defin'd that Part of *Fortitude*, whereby the Mind imagines, that it can undertake and support the most difficult Things, where, and when it is proper. But if those thorny and arduous Things are not common, and not to be undertaken by ordinary Acts, then they become the Object of *Magnanimity*, which differs both in Name and Effect from *Fortitude*.

Magnificency, according to *Tully*, is the Execution of great and pompous Things, which if it consists in Expences, has a very strict Connection with Liberality.

Patience, or *Constancy*, is a Virtue whereby our Mind is sustained, and strengthened in Adversities.

Perseverance, is a firm Resolution in what we have once determined, if it be either to attack, defend, or support.

It is asked, in this Place, if it be more noble, and more courageous, to sustain, or defend, than to attack? It is the common Opinion, that *Fortitude* appears with a greater Lustre in defending, than in attacking; for he who attacks to fight, fights him whom he considers as inferior to him, whence his Temerity is only to be moderated; but he who sustains the Impetuosity of another, fights with him whom he looks upon as superior and stronger; therefore he must conquer Fear, which is the greatest Difficulty, and consequently a greater, and longer Habit of *Fortitude*, or Courage.

It is asked, besides, if *Fortitude* appears better in sudden Things, than in those which are foreseen? *St. Thomas* answers in the Affirmative, because in sudden Dangers we must have a long Habit of *Fortitude*, and

Very well confirmed, since there is no Time allowed for Deliberation, nor to prepare one's self.

It is asked, thirdly, if to kill one's self, be an Act of Fortitude, or Courage? All sensible Men, answer against the *Stoicks*, that it is not a Man of Courage who kills himself, but a Madman, and a Coward; who does it through Vain-glory, or because he cannot support patiently the Loss of his Fortune, or some other Incommodity. Therefore, *St. Augustin, Lib. 19. de civitat. Dei. c. 4. I ask, says he, if Cato killed himself through an Excess of Patience, or rather of Impatience? For he had not done it, if he had not bore impatiently the Victory of Cæsar? Where is the Courage? indeed he surrendered; indeed he was conquered, &c.* And lower, *those Evils must be very great, which make Fortitude, or Courage a Murderer; must that then be still called Fortitude, which is conquered by those Evils, and which instead of governing and protecting a Man, as a Virtue ought to do, obliges him, on the contrary, to kill himself.*

O ridiculous Courage! O pusillanimous Fortitude! against which, Nature itself revolts, and Religion has shut the Gates of Heaven: O inhuman and barbarous Folly, condemned by right Reason, and punished by the Laws of all Nations, even after Death! O sacrilegious Temerity, to wrest from the Hands of the Almighty, a Power which he has reserved to himself, the Disposal of our Life; and pretend to a Knowledge, peculiar to him alone, that of the Hour of our Death!

It would be needless to rehearse here, the Vices opposite to Fortitude, since they are contained in its Definition. For Temerity is opposed to it, through *Excess*, and Fear and Cowardice, through *Defect*. Thus Pride and Pusillanimity, are opposed to Magnanimity, says *Aristotle, Lib. 4. Ethic. c. 9.* for a Man must be intrepid, but not mad, as the *Gauls*, who, says *Aristotle* again, *Lib. 3. Ethic. c. 10.* were afraid neither of Earthquakes, nor of Tempests.

I call *Temperance*, with *Aristotle, Lib. 3. Ethic. c. 13. A Cardinal Virtue which moderates the sensual Appetite, especially in the Taste and Taët.* I say especially in the *Taste and Taët*, or Feeling; because all the Pleasures we are sensible of by Means of the other Senses; as from a Picture, by the *Sight*, from Musick, by the *Hearing*, and from Odours, by the *Smell*, must be referred, according to *Aristotle*, and *St. Thomas*, *secondarily* only, and not *primarily*, to Temperance. Hence *Aristotle* observes, *Problem, Sect. 28. quest. 141. art. 4, 5.* that the Name of *Intemperance*, was used to be attributed only to those Vices, which we have in common with Brutes. For Brutes take but very little Pleasure by Means of the *Sight, Hearing, and Smell*, but a great deal by the *Taste and Taët*. For that Reason, Men who indulge their Taste and Taët beyond Measure, or more than they ought to do, are commonly considered as Brutes, like *Philoxenus*, who wished Nature had gave him the Neck of a Crane, that he could have tasted longer his Victuals and Drink.

But however, the Name of Temperance is often taken in a wider Sense, *viz.* for that Moderation of the Mind, which extends to all the Actions of our Life. Hence *St. Augustin, Lib. de morib. Eccles. c. 19. Therefore the whole Office of Temperance, says he, is to divest us of the old Man, and be renewed in God, i. e. to despise all the Vanities of this World, and the publick Honours and Praises, and to turn all our Love towards the divine and invisible Things.* But it must be confessed, that Temperance is oftener taken in the Sense of *Aristotle*, and of *St. Thomas*.

The Species or Kinds of Temperance, are Abstinence, Sobriety, Chastity, and Purity.

Abstinence is imagined to consist in Eating, and Sobriety in Drinking; Chastity is to abstain from all illicit Pleasures, Purity from all impudick Sights and Taët or Feeling; but there are three Degrees of Chastity, *viz.* virginal, conjugal, and of viduity.

Purity is derived from *pudor*, and Pudour is a Trouble of the Mind, occasioned by any Thing which can

cause Shame. There was an antient Custom among the *Romans*, in which their Integrity appeared with a very great Lustre; for when they sold a Virgin Slave, they used to take great Care that their Honour or Chastity should be safe, and therefore made a Bargain with the Buyer, that she should not be prostituted, otherwise she should be free. Whence arose the *Pact*, or *Contract of Immission*, or *Casting of Hands*; whereby the Vender could seize and carry away the freed Woman, if she had been prostituted by the Buyer.

If we believe *St. Thomas*, there are two integrant Parts of Temperance, *viz.* Modesty, and Honesty. He calls Modesty, the flying from all that has the least Mark of Intemperance; and takes Honesty, not in general, for the Agreement of every good Act with right Reason, but more particularly in as much as it chuses what appears the most honourable in the Acts of Temperance. Therefore, *honesty*, and *honourable*, in this Place, signifies the same Thing; in which Sense, *Tully* says, *Lib. 1. de offic. that what is honourable is honest, and what is honest honourable.*

It is very difficult to tell exactly the Number of the potential Parts of Temperance. The first is *Continence*, which resists the Motions of the Concupiscence provoking to Intemperance. The second is *Humility*, which inclines a Man to confess ingenuously his Imperfections. The third is *Mansuetude*, which moderates Wrath, as Clemency does Vengeance. The fourth is Modesty, which keeps in due Order the internal and external Motions of the Mind; and is defined by *Cicero, Lib. 2. de Invent. a Virtue whereby an honest Pudor acquires a just and permanent Authority.* The fifth is *Studiosness*, which confines the Desire of Knowledge within just Limits. The sixth, *Urbanity*, which regulates our Recreations and Diversions. The seventh, *Moderation*, which directs us in the Care we take of our Person.

The Vices opposite to Temperance, are either *thro' Excess*, or *thro' Defect*; but several of them have no Name. Therefore, 1. *Intemperance*, whereby one abandons himself beyond Measure to the Pleasures of the *Taste and Taët*, is opposed to Temperance thro' Excess, and thro' Defect; *Insensibility*, when the sensual Pleasures, order'd even by God himself, for the Preservation of human Nature, are neglected without Reason. 2. *Gluttony, Drunkenness, Luxury, and Impurity*, are opposed thro' Excess, to *Abstinence, Sobriety, Chastity, and Purity*; and thro' Defect, the Vices which have no Name. 3. To *Modesty, and Honesty*, are opposed thro' Excess, *Immodesty, Impudence, and Turpitude*; and thro' Defect, the Vices which have no proper Names. 4. *Incontinence to Continence, Pride to Humility, Wrath to Mansuetude, Curiosity to Studiosness, Scurrility to Urbanity, and Luxury to Parsimony*, are repugnant thro' Excess. The Vices oppos'd to them, *thro' Defect*, have no Name.

From the Principles heretofore established, can be deduced certain general Rules, whereby all human Actions may be directed towards the salutary End proposed to all Men. Therefore we have no need to run through all the different Conditions of Men; since the same Precepts for a regular Conduct are common to all without Distinction, though notwithstanding it is a *Propos*, to examine, at least in general, the different Duties of Men; because it is not proper that a Philosopher should be ignorant of them. Those Duties are either of a Man to God, and to himself; or of a Man to other Men, either with regard to a Family, or to a Republick. Which different Duties are all as follows.

It seems that Man was formed to God's Image, and created for no other Reason, and for no other End, than to know and love him; and to obtain, through means of a religious Worship, the Fruition of that divine Object, who alone can render him truly happy. Which to facilitate, God himself has infused within him an immortal Soul, capable of Intelligence, of Religion, and of an eternal Felicity; so that though this visible World was entirely destroy'd, that Soul will remain, by the Condition of its Nature, always the same,

same, and uncorruptible; which is more than sufficient to inspire us with the greatest Sentiments of Gratitude for that supreme and eternal Being, who has been pleased to distinguish us in so particular and excellent a Manner from the rest of his Creatures; and to raise our Mind from the Contemplation of our own Excellency, to that of the divine Architect, who has made us his Master-piece. That Contemplation will soon make us understand that we ought to love him, with all the Faculties of that Soul he has created of so noble and so excellent a Nature; and modelize all the Actions of our Life, according to those salutary Rules which in his great Wisdom he has established to render them agreeable to him; and which is not to be considered as a laborious, but rather as an honourable Task. For what must we be, whose Vows and Prayers a supreme and immense Being, will have the Condescension to hear and excuse? Therefore none but those who forget themselves, will also forget so much Honour done to them. But however, if we believe the Royal Prophet, *Psalms* xlix. 12. *Nevertheless, Man being in Honour abides not: He is like the Beasts that perish.* Which is the greatest Punishment which can be inflicted on those ungrateful Men, who are not sensible of the Advantages of their Condition, to be reduced to that of the Brutes, to have no Taste but for terrestrial Things, to nauseate the celestial, and refuse to be cured of the Wound they do not feel.

Therefore we must persuade ourselves, 1. That God is the Principal and End of all Things; that his Power is diffused throughout this vast Universe. And his Wisdom in the Government and Disposition of all Things, *attains powerfully from End to End, and disposes all Things with Suavity*; that all that's done, may be done with a just Economy and for him, that we all live, move, and rest in him, so that he can never be too much worshipped and beloved by us, and we always love him less than we ought to do. Therefore that it is beneath us, who profess Christianity, to fix our Affections on the Creatures, otherwise than on transitory Things, which vanishing in an Instant, deserve but the least of our Attention.

2. And because the Figure of this World passes, and we have but one essential Obligation, which is to observe the Law of God; we must learn as perfectly as possible, that divine Law, make it the Subject of our most serious Meditations, and not neglect, if possible, even the least Article of it. *Quid enim, says Lactantius, in Epitom. c. 1. tam justum ad equitatem, tam pium ad honorem, tam necessarium ad salutem, quam Deum cognoscere ut patrem, venerari ut dominum, ejusque legi aut præceptis obtemperare?* i. e. What is more agreeable to Equity, more conform to Honour, and more necessary to Salvation, than to love God as a Father, respect him as a Lord, and obey his Law, or Commandments?

3. But we must not content ourselves with an inward Worship, but likewise practise an exterior one, consisting in publick Vows and Prayers, in the Company of the Faithful, that others may be edified by our Example. *Coimus in cætum & congregationem, says Tertullian, Apologet. c. 39. ut ad Deum quasi manu facta precationibus ambiamus orantes. Hæc vis Deo grata est.*

4. With regard to the Prayer, whereby we ask something of God, we must seriously consider what and from whom we ask. For we are not to ask God trifling Things, much less those which are illicit or unjust; but ask only those which can be necessary to our Salvation. For Christians must not be like those Pagans reprimanded by *Perfius, Satyr. 2.* who with a loud Voice, asked Virtue and Sincerity, to be praised by those who heard them; but at the same Time, whispered to Heaven that he would be pleased to enrich them with the Spoils of others.

*Mens bona, fama fides; hæc clarè & ut audiat hospes:
Illa sibi introrsum, & sublingua immurmurat; & si
Ebullit patrui præclarum funus! & si
Sub rastro crepit argenti mihi seria dextro*

*Hercule! pupilleumve utinam, quem proximus hæres
Impello, expungam! namque est scabiosus & acri
Bile tumet.*

Therefore what it is just we should ask God, is that which can be advantageous to us and to others, viz. a Mind ready to execute the divine Commandments, and a Will inclined to do Good to those we live with.

5. We must also be thankful for all the Benefits or Favours we have received from him: And the best Manner to shew our Gratitude on those Occasions, is to shew always the same Equality of Mind, and the same Tranquility, either in Adversity or Prosperity; for God does not love less those he is pleased to tempt by Adversity, than those he loads with temporal Favours.

But to express all we have said on this important Subject in few Words, these are the Chief of our Duties to God, that nothing may be capable to divert us from his Direction, and the Execution of his Precepts; that whatever may be our Condition, we may have Recourse to him as to our Father, and put our whole Confidence in him. For we must behave in such a Manner that we may attribute to ourselves these Words of the Apostle St. Paul, *Epist. Rom. viii. 35. Who shall separate us from the Love of Christ? shall Tribulation, or Distress, or Persecution, or Famine, or Nakedness, or Peril, or Sword?* And afterwards conclude with him in this Manner: *Neither Death, nor Life, nor Angels, nor Principalities, nor Powers, nor Things present, nor Things to come, nor Height, nor Depth, nor any other Creature, shall be able to separate us from the Love of God which is in Christ Jesus our Lord.*

From the Love of God we'll pass to the Dilection of our Neighbours: For none is nearer to us than our selves. Hence this common Proverb, *Charity begins at home*; which notwithstanding must not be understood, as if one was commanded to prefer his own temporal and private Utility, to that of others; for that is the Effect of Self-Love and not of a true Charity; but only those Things which relate to our eternal Felicity, which we must prefer to all other Considerations: Therefore the chief Duty of a Man to himself, is to take Care of his own eternal Felicity, or to love himself by a reasonable and just Motive.

That a Man may love himself of that Dilection which is utile and just, viz. with regard to an everlasting Life, *he must lay apart all Superfluity of Malice, and keep himself unspotted from the World*; according to the Apostle St. James, *Epist. i. 21. 27.* Whence it is necessary to take a great Care to moderate all the Faculties and Affections of our Soul; for as no Body is born without Imperfections, which incline us to Evil, we must endeavour, if not to root out entirely those depraved Inclinations, at least to keep them in due Order, and under the Direction of our Reason.

And, 1. With regard to our Body, it must be fed with necessary but not superfluous Aliments, that we may neither fall under its Burthen, nor revolt against the Spirit; Wine, especially, must be used with Parsimony, for *when it gives its Colour in the Cup* (says Solomon, *Prov. xxiii. 30, 31.*) *when it moves itself aright: At the last it bites like a Serpent, and stings like an Adder.* Therefore we must not consult in our Meals how to please our Palate, or to indulge Gluttony, but to take the moderate Refection which Nature requires.

2. We ought not to be Idolaters of our Body, nor break it by Idleness; but, on the contrary, strengthen it by Exercise and Labour: For there is nothing more prejudicial to it than to indulge it in Luxury and Indolence, which not only weakens and corrupts it, but likewise proves contagious to the Soul, and plunges it into all Sorts of Irregularities and Vices.

*Otia si tollas, periere Cupidinis arcus,
Contemtaque jacent, & sine luce faces.*

Therefore we may very well say, that a Man who lives

lives in Indolence, and Inaction, learns how to act ill; and through his Indolence falls of Necessity into all Sorts of Debaucheries; whereby he is so weaken'd and enervated, as to be almost impossible for him, afterwards, to reassume a manly Mind; which renders him incapable of learning any Thing proper to adorn his Soul, or of any Offices or Posts, either in the Cabinet, or the Army, or the Judicature, &c. so that he is forc'd to lead an infamous Life with the greatest Reprobates, till at last he changes it for an obscure and ignominious Death.

3. To use the Terms of the Scripture, we must put a Guard to our Senses; since what enters through our Ears, or Eyes, makes often so great an Impression on our Mind, as to excite its Affections beyond Measure, as to be almost impossible afterwards to conquer them when we please: To which Youth are more subject than Persons advanced in Years, who, by a long Experience of the World, have learn'd how to be upon their Guard. Whence *Juvenal*, Satyr. 14.

*Nil dictu fedum visuque hæc limina tangat,
Intra quæ puer est.*

4. We must, besides, endeavour to adorn our Soul with Virtue and Knowledge; that with their Assistance it may, with a greater Facility, govern herself, and the Body which is under her Command. Tho' we ought to have Regard to every one's Condition; for they do not all become every Condition indifferently. Since other must be the Study of a Merchant, other that of a Judge, and other that of an Artisan: But however, they must all observe that just Medium, which is so very agreeable to Virtue. Those are the happiest, whom the divine Providence has destin'd to the Study of the liberal Disciplines; for they know better, not only their own Duties, but likewise those of others; which Knowledge renders them, at the same Time, much less excusable, if they neglect their Duties.

5. It is impossible to describe every one of the Duties of a Man to himself, since they are different according to the Difference of Persons: But however, these general Rules may be prescribed; that there is a certain Medium, or Subordination, to be observed, either in the Judgment which every Body forms of himself; or in his external Gestures or Motions; or in his outward Apparel; or in his Table and Equipage. For as *Juvenal* says, Satyr. 11.

*Noscenda est mensura sui, spectandaque rebus
In summis minimisque: etiam cum piscis emetur,
Ne multum capias, cum sit tibi gubio tantum
In loculis.*

Therefore we are not to live either with more Splendour, or with a greater Parsimony; but every one must have Regard to his Birth, Fortune, and Faculties; that there may be a certain Subordination, in the Houses, Equipage, and Cloaths.

*Aurcam quisquis mediocritatem
Diligit, tutus caret obsoleto
Sordibus lecti, caret invidendâ?
Sobrius aulâ?*

Neither are we to envy those who live in a more elegant Manner than we do, for every Condition has both its Advantages and Difficulties. Whence the Apostle St. Paul wisely admonishes us, 1 Cor. vii. 20. that every Man must abide in the same Calling wherein he was called; without envying that of another.

Therefore those act with Prudence, who study carefully all that belong to their Vocation, follow it, and remain in it. But that Kind of Life, to love what becomes us most, is the Work of Heaven, and not a human one. And the Difficulty is still greater, when we have made Choice of a State of Life, when we were too young, yet, to make that Choice: *In eunte enim adolescentiâ*, says *Cicero*, lib. 1. de offic. cum in

est maxima imbecillitas concilii, tum id sibi quisque genus ætatis degendæ constituit, quod maxime adamavit, itaque antè implicatur aliquo certo genere cursuque vivendi, quàm potuit, quod optimum esset judicare. Therefore, in an Affair of that Importance, we are first to implore Heaven's Assistance, that we may chuse what is more convenient to us, and more agreeable to God: And afterwards consult our Friends, not every one, but those only we know to have a greater Share of Judgment, Prudence, and Discretion.

This leads us insensibly to the Consideration of a Man's Duty towards his Family, which *Aristotle* has described in two Books, and which is call'd *Æconomical Doctrine*. The first consists of six Chapters, where he shews the Difference between the *Æconomick* and *Politick*; and treats of the different Parts of a House, of the Manner of acquiring Wealth, of the conjugal Duties of Husband and Wife, Masters and Servants; in the last, which is not divided into Chapters, is almost entirely historical, where he describes several Forms of the *Æconomick*. He has also inserted in his first Book of *Politicks*, several Things relating to the same Subject: All which we design to consider, as far as they relate to Morality; explaining more particularly Men's Duties towards a Family: Which Duties are either of Persons engag'd in the conjugal State, reciprocally to one another, or of Parents and Children, or of Masters and Servants. Therefore,

The first and most natural Society is that call'd the *Conjugal State*; the chief End whereof is the Propagation of the human Race, and the Education of Children; which the easier and better to obtain, a Man should have but one Wife, and a Woman but one Husband; first, because God created at the Beginning *Adam* and *Eve*, and join'd them together. Secondly, because a just Harmony and mutual Love should subsist between Man and Wife; which Love would soon be divided, and perhaps entirely dissolved, if a Man should have several Wives, and a Woman several Husbands; which would be the Occasion of frequent Quarrels and Disputes.

Which, notwithstanding, for the Increase of the human Race, God permitted in former Ages, that a Man should have at once several Wives, but never that a Woman should have several Husbands at once: Thereby we may easily understand, how contrary to the Law of Nature, was the Sentiment of *Plato*, who pretended that all Things, not even Wives excepted, should be in common, not only among the People, but likewise among those who govern'd them. Which Sentiment he attempts to maintain in the fifth Book of the *Republick*. For as *Aristotle* very well observes, in the first Chapter of the second Book of *Politicks*, where he refutes the Sentiment of *Plato*, if that Community (not of Goods only, but of Wives likewise) was tolerated, all Things would be in Confusion, and no Body would know his own Progeny: Whence there would be continual Room for Parricides, Incests, and all other such flagrant Crimes, while all Things would be in that Confusion.

Therefore, the conjugal Society between Man and Wife ought to be one; and it must be cemented, not only by a mutual Love, but likewise by a mutual Honour; in such a Manner, however, that the Wife be subject to her Husband; since she receives all her Lustre from him. *We raise the Wives to the Honours of their Husbands*, say the Emperors *Valentinian*, *Theodosius*, and *Arcadius*, Leg. ultim. Codic. de incolis, and ennoble them, by their Race — but if afterwards Women marry Husbands of an inferior Rank, they must be deprived of their first Dignity, and be reduced to the Condition of their last Husband.

But notwithstanding the Power of a Husband over his Wife is not despotick, but only political; so that he is to consider her as his Companion, not as his Servant: For which Reason the Wife was not extracted from the Head or the Feet of the Man, but from his Side; that she may not usurp a Power over her Husband, nor be consider'd as a Servant. Tho' *Aristotle* says, Lib. 1. Politic. c. 2. that among the Barbarians

Barbarians a Wife was esteem'd a Servant; and to the Poor, an Ox served instead of a Servant, or was the same as a Servant. Hence *Hesiod*:

Sit domus in primis, uxorque & taurus arator.

But *Aristotle* is of another Sentiment, since he acknowledges a perfect Communion between a Man and his Wife; and admires the Providence of God, *Lib. 1. Econom. c. 3.* for having established the Society of Man and Wife in such a Manner, that, though their Occupations be different, they notwithstanding act so as to consult both the same End, viz. the Good of their Family, as if they were but one and the same Person. Therefore God has formed the Man active, vigilant, stronger, and more robust, that he may be capable either to defend the Goods he has acquired already, or to acquire them and bring them home; and the Wife weaker and timorous, to stay at home, to economise the Estate of her Husband, and take Care of her Children: Hence the Name Matrimony, as *Matris munium*, i. e. the Office or Occupation of the Mother, which is to bring up her Children.

Therefore, as a Wife is a Companion not a Servant, *Aristotle, lib. 1. Econom. c. 4.* forbids a Husband to maltreat his Wife; though at the same Time, as Chief, he has a Right to chide and reprimand her: But that Right has been wrested long since by our termagant Wives from their Husbands; who not only have usurped the Right of Admonition, but likewise that of Correction; applying but too often *activa passivis*, when their honest Husbands have the Presumption to contradict them in the least Thing, or to find Fault and condemn the Irregularity of their Conduct. I know some of that Character, for whom there should be some honourable Place of Correction, if their Misbehaviour proceeds from Impertinence, and if from Madness, should be sent to *Bedlam*.

By the Law of *Romulus*, quoted by *Pliny, Lib. 14. hist. nat. c. 13.* it was licit for a Husband to punish his Wife when she was drunk, and to kill her when surpris'd in Adultery. There is some Appearance, that this Law was inserted in the twelve Tables, since it had been in Force at *Rome* for several Ages, under their Kings. To this succeeded the *Law Julia of the Adulterers*, which was also changed by the Emperor *Justinian*, who ordered by a Constitution, that a Woman surpris'd in Adultery, should be sent into a Monastery to be whipp'd. In *Moses's* Law, both the Adulterer, and Adulteress, were put to Death.

Aristotle advises a Man, who wants to form his Wife to his Humour, and Manner of Living, to marry a Maid, or a Virgin, according to this Verse of *Hesiod*,

Ut mores doceas pulchros, tibi virgo sit uxor.

A Wife must neither be too old nor too young, but of an Age capable to govern a Family; but above all she should be of an irreproachable Life, and Conduct; and that Man is a Fool, who prefers Beauty, which passes in an Instant, and Riches, to Virtue and Merit. Whence this of *Plautus, in Aulula, act. 1. scen. 4.*

Dummodò morata rectè veniat, dotata est satis.

And what *Horace* says of the *Scythians*, and *Geti*, *Lib. 3. carm. Ode, 24.*

*Dos est magna parentum
Virtus, & metuens alterius viri
Certo fœdere Castitas.*

Likewise, the Probity and Industry of a Man is to be prefer'd to Fortune, though the Goods of Fortune, especially as much as are necessary to defray the Expences of a married State, are not to be neglected; but when a blind Love, or Avarice, seals a Contract of Marriage, we must not be surpris'd, if such Marriage is disturbed with Jars, Quarrels, and Dissentions. Be-

sides, *House and Riches*, says *Solomon, Prov. xix. 14.* are the Inheritance of the Fathers, and a prudent Wife is from the Lord; who must always be consulted in an Affair of so dangerous a Consequence; for in my Opinion; Death is preferable to the Unhappiness of marrying some of our modern Jilts, who make of their House an anticipated Hell; who, without the least Consideration for their Husband and Children, lavish away his Substance, and confine him at last, for the Remainder of his Days, in a dreadful Dungeon; who have usurped so tyrannical a Power over their Husband, that he appears rather as a Slave in his own House, than as Master; and scarce dare to open his Mouth, to complain, or plead in his own Defence, but it is instantly shut by the clamorous Insolence of the Jilt his Wife; who to support her Extravagancy, and make her soar above her Sphere, forces often her Husband to lay his Honour, Credit, and Reputation at Stake; who do not care whence the Money comes, or what Measures are taken to get it, licit, or illicit, provided she has it when she wants it; who though she brought no other Portion to her Husband, but an inexhaustible Stock of Impudence, Ignorance, and Pride, wants all the Attendance of a Lady of Birth and Fortune, and very often more; who spend their whole Time in Idleness and Indolence, her whole Occupation consisting in consulting every Day, how to put their Husbands to some new Expences for their Dress. For I don't speak here of those infamous Wives, who abandon themselves to all Sorts of Debaucheries; nor of those affected Prudes, who while they recommend publicly Virtue and Modesty, entertain secretly the most criminal Intrigues.

How happy is that Man who finds a Wife of a different Character, which is so rare at present, that even one in Rags, or taken from following a Flock, is preferable to a Jilt with an immense Fortune; for if she brings none, she soon finds the Secret, by her prudent Economy, to save one from that of her Husband, which must be more welcome to him, than that brought by a Jilt, who always spends a great deal more than she brings; and the more particular is, that the greatest Jilts are always Fortune-less.

The second Society of Men, is that of Parents and Children, which cannot very well subsist, without a mutual Assistance among them. For it is not enough that Parents have brought Children into the World, they must also provide for their Subsistence and Education; and Children, in their Turn, must honour, love, and assist their Parents.

Aristotle was of Opinion, *Lib. 7. politic. c. 16.* that Children born deform'd, or mutilated, were to be killed, as being liable to become burthensome to their Parents, and to the Republick: Likewise, if Women were more fruitful than the Law allowed, an Abortion ought to be procured, before the Fœtus is animated; for then it would not be a Murder, since such Fœtus is not yet a Child. But Nature and Humanity abhor this extravagant Opinion of *Aristotle*; for though we have a despotick Power over Beasts and Plants, we have no Right at all on the Life of Man. Besides, as the Design of the divine Providence, which permits, sometimes, certain Defects in the Production of Things, are entirely hid from us, we are not to oppose its Decrees; but all Children born, let them be perfect or imperfect, must be received and kept. For among those who are deform'd, there are often some found of an excellent Genius, and are a great Ornament to a Republick.

Therefore no Man has any Right on the Life of another Man, though in the earliest Times of the *Roman* Republick, when Men's Manners were not yet civilized, the Law of the twelve Tables, granted to a Father the Power of Life and Death on his own Children; but that primitive Ferocity having been, in Process of Time, banished from the Republick, that Cruelty, so contrary to Nature itself, was mitigated, and Fathers were forbidden to kill their Children of their own private Authority. Therefore, far from its being licit for Parents to kill their Children, they, on the

the contrary, are obliged to cherish them, maintain them, and defend them, as far as it is their Power, from all Injuries.

But to enter into a more particular Detail of the Obligations or Duties of Parents to their Children, we'll begin by the Nutrition, which is the principal Duty of a Mother, which *Plutarch* advises in his Book of the Education of Children, to suckle herself her own Children, and not throw them to other Breasts, which it is impossible should be so natural to them: For by that depraved Custom, the Office of a Mother, which should be the most charming Office under the Heavens, seems to be *divided*, not to say *despised*. Besides, the Body of the Infant which at its first coming into the World, appear'd to be well form'd and healthy, as *Phavorinus* says, *Lib. 12. noët. attic. c. 1.* degenerates by its being fed with strange Milk. The same as we see a young healthy Plant transplanted into another Place, where it is nourished with depraved Juices, perish. For it is not supposed that Nature supplies a Mother with so great Abundance of Milk at that Time, for any other Reason, than to suckle her own Children. Add to this, that Mothers who thus desert their Children, and give them to other Women to nurse, weaken, if not entirely destroy that natural Sympathy, and mutual Love, which commonly subsists between Parents and their Children.

Secondly, Parents must take a particular Care of the Education of their Children, without which, their Conduct would be more like that of Brutes than of Men. Hence *Juvenal*, Satyr 14.

*Gratum est quod Patriæ civem populoque dedisti,
Si facis ut Patriæ sit idoneus, utilis agris,
Utilis & bellorum, & paucis rebus agendis.*

Previously to any other Instruction, they must inspire them, as well by Example, as by Words, with Devotion and Love for the supreme Being, supported with a sufficient Knowledge of the Divinity. Whence *Plutarch* observes, that *Plato* advised very justly, Nurses, to abstain from singing to Children, idle and ridiculous Fables, which often contain Things repugnant to the divine Majesty, or contrary to Reason, or good Manners. It is easy enough to propose to Children, Examples of Piety, of Courage, or of any other Virtue, taken either from sacred or profane Authors; but, first, Parents must take Care not to contradict their Words by their Actions, and engage their Children to imitate their bad Conduct: As *Juvenal*, Satyr 14. reproaches them:

*Dociles imitandis,
Turpibus ac pravis omnes sumus.*

Children must be instructed in those Sciences, which suit best their Genius and Condition; and then are to be treated, neither with too much Severity, nor too much Indulgency, or Complaisance. For they must be allowed some Recreation, or Diversion, but it must be honest, and used with Moderation.

But if the Duties of Parents are such, what must be their Children's Gratitude, who can never requite to the full Value, the Obligations they owe to their Parents? For whatever Children have, except the Faculty of obeying, and behaving well towards them, they have received from them, or from God through their Means. Therefore they must love them, obey, and honour them, assist, or succour them in their Calamities, or Infirmities, not only according to the Dictates of the Laws of Nature, but also by the express Command of God, *Exod. xx. 12. Honour thy Father and thy Mother, that thy Days may be long upon the Land, which the Lord thy God giveth thee.* Which Command is confirmed by Christ's Example, *Luke ii. 51. And he went down with them and came to Nazareth, and was subject to them.* Therefore, what must we think of those ungrateful Children, those Monsters of Nature, who forgetting the great Obligations they owe to their Parents, not only despise

them, but too often use them in the most barbarous Manner? How often do we see Children, whom Fortune has been pleased to favour more than she had done their Parents, scandalously ashamed of those from whom they have received their Being, and to whose Industry, and indefatigable Labour, they are indebted in Part, for that chimerical Radiancy, which dazzles their Eyes so powerfully, as to hinder them from seeing the Source they are sprung from? What Scandal to Mankind to see those poor Parents afraid to appear before their proud Progeny, lest they should disoblige or disgrace them, and if Necessity force them to do it, be before them, in the humble Posture of the most despicable Slave, in the Presence of an insolent Master; though often that criminal Conduct proceeds from the extravagant Ambition of Parents, by making their Children greater than themselves, for which they justly deserve such Treatment; especially when they have been ignorant enough to reduce themselves to a State of Indigency, to obtain that End? I say they justly deserve such Treatment, not that I pretend to excuse thereby, the Ingratitude and Insolence of Children, but as a Punishment from Heaven, for having been too ambitious. Prudent Parents reserve always to themselves, the Power of claiming from their Children that Respect, which otherwise they would not be perhaps very ready to shew them. For while Children expect something from their Parents, they are afraid to disoblige them.

As there are in a Family several Offices or Occupations, which are not very proper for Parents or their Children, they are obliged to have Servants to discharge them; therefore there must be a certain Society between Masters and their Servants, for the good Economy of a Family.

This Society is founded on two Things, *viz.* on the Authority of the Master, to command what is to be done; and the Submission of the Servants, to obey and execute those Commands; and scarce any human Society can subsist without these two Offices, since a certain Subordination is required in every Society, between *Equals* and *Unequals*; and consequently some must command, and others obey.

Aristotle believes, *Lib. 1. Politic. c. 5.* that according to the Order established by Nature, those ought to command, who have a greater Share of Prudence and Judgment; and those obey, who are stronger and more robust, and have less Judgment. Therefore, he says, that some are born for Slavery, or *Servitude*, whereof there are two Kinds.

The first Kind of *Servitude*, is taken for the State or Condition of a Man, which forces him to serve in Spite of himself, another who has acquired a certain Authority over him. Which Kind of *Servitude* is not natural, since all Men are born free, and Masters of themselves, no Body having a despotick Power over them, by Nature, but God himself; especially if we consider the first Condition of Man before his Prevarication. Therefore, that Kind of *Servitude*, is defin'd by *Florentinus*, *Lege 4. de statu hominum, a Constitution of the Law of Nations, whereby a Person is put under the Jurisdiction, or Power of another, against Nature.* And as we have all a natural Inclination to lord it over others, the *Roman* Emperors had judg'd proper, to put some Limits by their Constitutions, or Ordinances, to the exorbitant Power which Masters had usurped over their Servants; as we read it in the first Book of the Institutions of the *Roman* Civil Law, Tit. 8. where the Emperor *Justinian* speaks thus: *But at present, we do not permit any of our Subjects to lord it beyond Measure over their Servants; for by the Law of the divine Antoninus, he who shall kill his own Servant, ought to be punished as severely, as he who kills another Man's Servant.* For that Emperor having been asked by the Governors of Provinces, how they were to behave towards Servants who took Sanctuary in Temples, or near the Statues of Emperors, he commanded them, if the Servants had been barbarously used, to oblige the Masters to sell them on good Conditions, since it was

was expedient to the Republick, that none should abuse, even those Things which belong'd to them.

This Conduct of the Emperor, shews plainly, that we have all naturally a true Sense of Men being born free, and consequently that *that* Servitude is not natural, which is opposed to a natural Liberty; which, for that Reason, is very well called by some, a Servitude of *Coaction*.

The second Kind of *Servitude*, is called of *Houſhold*, or *Attendance*, whereby one serves another, or is of that Quality in a Family, as to be entirely in his Power, and which is the Condition of our Servants or Domesticks, who though they serve us, remain still entire Masters of themselves, so as to be at Liberty to leave us when they please. This Sort of Servitude, if we believe *Aristotle*, is entirely natural; for as that perfect Society, for which Men are designed by Nature, cannot subsist without a Subordination between Equals and Unequals: Hence it is just, that those who are born inferiors, *i. e.* as *Aristotle* interprets it, who have less Understanding, and a narrower Genius, should obey those who have a superior one, and be directed by them.

If it should happen that any Body had Servants properly so called, *i. e.* who are entirely in the Power of their Master, *Aristotle* commands, *Lib. 1. Œconom. c. 5.* to chuse them honest, and if they be bad to kill them. He orders, likewise, that they should be well fed, but interdicts Wine to them; and is of Opinion, that after they have serv'd faithfully a certain Time, they should be set at Liberty.

But as under *Christ*, there is neither bond nor free, says the Apostle *St. Paul*, *Galat. iii. 28.* that Servitude, which is against Nature, is banished from the Christian Church; whence when we mention Servants among Christians, we understand those who are at their own Disposal, and not those who have entirely lost their Liberty. In that Sense, we apply to ourselves what

the Apostle says to the *Colossians*, *iv. 1.* Masters give unto your Servants that which is just and equal. And it is just we should give them Food, and their Wages, there is besides a certain Moderation, as well in the Work we expect from them, as in the Punishment they are to be chastised with. Therefore, we are not to use them cruelly, or refuse them their Wages, which is a Crime which cries against us to Heaven, *Deut. xxiv. 15.* Lastly, we must also take Care of their Salvation, according to the Precept of the Apostle *St. Paul*, *Epist. 1 Tim. v. 8.* But if any provide not for his own, and especially for those of his own House, he has denied the Faith, and is worse than an Infidel.

But the Obligations of Masters to their Servants, and the Duties of Servants to their Masters, are comprised in few Words in the Epistle to the *Ephesians*, *vi. 5.* and following, *Servants be obedient to them that are your Masters according to the Flesh, with Fear and Trembling, in Singleness of your Heart as unto Christ; not with Eye-Service, as Men-Pleasers, but as the Servants of Christ, doing the Will of God from the Heart. With good Will doing Service, as to the Lord and not to Men: Knowing that whatsoever good Thing any Man doth, the same shall he receive of the Lord, whether he be bond or free.*—And ye Masters, do the same Thing unto them, forbearing threatening; knowing that your Master also is in Heaven, neither is there respect of Persons with him.

These are the principal Societies of Men, and their principal Offices and Obligations; it remains at present to speak of Man's Duties towards the Commonwealth, which I'll do in my Treatise of *Government*, under the Letter G, and which will be a very compleat one; containing all the different Sorts of *Government*, and the Maxims necessary to render every one of them happy.

EUCCHARIST.

EUCCHARIST, *Eucharistia*, (in Greek, *Εὐχαριστία*, which literally imports *Thanksgiving*; being formed of *ευ*, bene, well, and *χαρις*, gratia, Thanks) is the Sacrament of the Body and Blood of Christ, under the Species, or Figure of Bread and Wine.

Note, That the Doctrine of the *Eucharist*, is a very great Point of Controversy between the Catholics and Protestants, which if well understood by both, would soon be determined to the general Satisfaction of the universal Church, and to the Honour of the Christian Name; which has suffered much by those Controversies: But that Spirit of Division which inspires both Parties, makes me almost despair of ever seeing that so long wish'd for Re-union, which would make of all the Christian Sects, but one Flock, and one Sheep-fold, under the Conduct of the good Shepherd JESUS CHRIST. Though I design in this Treatise to contribute all I can to forward that Re-union (if it was a Thing practicable) to state candidly and impartially, without espousing any Party, all that can be said on both Sides on that important Subject, extracted from authentick and original Manuscripts, both *Greek* and *Latin*; leaving my unprejudiced Reader, to judge which of the two Parties is in the Right, or in the Wrong. And lest I should be accused of telling Romances, I'll quote whole Passages as they are found in the Original, and join a literal Translation to them.

For a clearer Intelligence on this Subject, we must observe, first, that the *Eucharist* is acknowledged a Sacrament by all Christian Sects, and that a Sacrament,

is a Sign visible, of a Thing invisible, *i. e.* that by a visible Sign or Figure, is signified what is meant by the Sacrament, *viz.* the Grace of God for our Sanctification, or Justification: The Point in Controversy, with Regard to the *Eucharist*, is then to know, if to receive that Grace, we must receive, really and substantially, the Body and Blood of our Lord Jesus Christ; or rather the Body and Blood of Jesus Christ is under the Species or Figure of Bread and Wine.

The *Roman* Catholics answer in the Affirmative, and support their Sentiment by the Authority of the Scripture, by that of the antient Fathers both of the *Greek* and *Latin* Church, and, say they, by the antient Belief of the Universal Church.

The Passages of Scripture they quote in Defence of their Belief, are, first the Verses 51, 53, 54, 55, 56. of the 6th Chapter of the Gospel of *St. John*, *And the Bread that I will give is my Flesh. Verily, verily I say unto you, except ye eat the Flesh of the Son of Man, and drink his Blood, ye have no Life in you. Whoſo eats my Flesh, and drinks my Blood, has eternal Life. FOR MY FLESH IS MEAT INDEED, AND MY BLOOD IS DRINK INDEED. He that eats my Flesh, and drinks my Blood, dwells in me, and I in him.* Secondly, the Verses 26, 27, 28. of the Gospel of *St. Matthew*, *Jesus took Bread and blessed it, and brake it, and gave it to the Disciples, and said, take eat, THIS IS MY BODY. And he took the Cup and gave Thanks, and gave it to them, saying, drink ye all of it: For this is my Blood of the New Testament, which is shed for many, for the Remission of Sins.*

Those who deny the real Presence, are of Opinion, that these Passages of the Scripture, are to be understood in a figurative Sense, according to this Passage of *Tertullian*, *Lib. 4. cont. Marcionem, c. 40.* *Acceptum*

ceptum Panem & distributum discipulis, Corpus suum illum fecit: hoc est Corpus meum dicendo, id est, figura Corporis mei, i. e. He made the Bread, he took and distributed to his Disciples, his own Body: Saying, This is my Body; that is to say, the Figure of my Body.

To this the Catholics answer, That it is in vain to have Recourse to a figurative Sense, when the literal suffices; according to the Rule prescribed by St. *Augustin, lib. de Doctrin. Christian. c. 10. & 16.* which they are the readier to believe, say they, because they cannot imagine that the *Capernaïtes* could have been scandalized of the Discourse of Christ, if he had promised to them his Flesh to eat, and his Blood to drink, by Faith only, and not by the Mouth. And therefore if they were scandalized, it follows hence, that Christ understood his real Body and Blood, when he promised them his Flesh to eat, and his Blood to drink. That as he spoke at the Time of the Institution of that august Sacrament to his Disciples, who having not been yet enlighten'd by the Irradiation of the Holy Ghost, were yet dull of Apprehension and ignorant, it was necessary he should express himself, on so important a Subject as this, on which he declared so often, and in such formal Terms, depended their Salvation, or eternal Felicity, as clearly and intelligibly as possibly; that it is very reasonable to suppose, that the Apostle understood these Words, *This is my Body, this is my Blood*, (which left no Room for the least Ambiguity) in their genuine and literal Sense; since they did not ask their divine Master to explain them in clearer Terms, as they used to do, when he proposed them some Parables, which they imagined repugnant to Reason, or impossible: And that it would be injurious to Christ's immense Charity and Goodness, who could penetrate the inmost Recesses of Man's Heart, and discover the most hidden of his Thoughts, to suppose, That had he known that his Disciples were mistaken, in taking in a literal Sense, Words which were to be understood in a figurative one, would have left them in their Ignorance, so prejudicial, not only to their Salvation, but likewise to that of all those they should be sent to instruct in his Religion, after his Ascension into Heaven. That the Apostles themselves, conscious of his Omnipotence, were not at all shocked at his telling them, that he gave them his Body to eat, and his Blood to drink, which otherwise had been more capable to excite their carnal Curiosity, and make them wonder how such a Thing could be done, since he was there present among them; while he was enriching them with such inestimable Gifts, without the least Change or Alteration in his sacred Person, than any of the other Things he had heretofore proposed to them, even the most incomprehensible: And that *that* solemn Protestation, that *his Flesh was Meat indeed, and his Blood Drink indeed*, took off all Doubts, which they could have entertained on that Subject, and made them convinced of the Truth thereof, without enquiring further.

As to the Passage of *Tertullian*, they say, that it cannot be inferr'd from those Words, that the *Eucharist* is only the Figure of Christ's Body, though the *eucharistical* Species can be said a Figure and Sign thereof; that therefore these Particles, *that is to say the Figure of my Body*, are not related to those, *my Body*, nor explicative of them, so as it should be understood that the whole *Eucharist* is a Figure; but are only related to the Bread; which can be inferr'd from what *Tertullian* says on the eleventh Chapter of *Jeremiah*; where he teaches, that Bread in the Old Testament has been the Figure of the Body of Christ; so that those Particles, *That's to say the Figure of my Body*, are only explicative of this Term, *This*, and the Sense of the whole Passage this; *That which in the Old Testament was the Figure of my Body, is at present my Body, viz. by the Consecration.*

To this the *Calvinists* reply, that if these Particles, *That is to say*, are only explicative of the Term *This*,

Tertullian should have put them immediately after the said Particle, *This*, and not after these, *my Body*.

The *Roman Catholics* deny the Conclusion; and are of Opinion, that *Tertullian* did it by a Figure, call'd in Grammar *Hyperbaton*, to not interrupt the Order of the Words of Christ; which Manner of speaking was very common to *Tertullian*, and which he uses in several other Places, especially in his Book, *contra Prox. c. 29.* where explaining how Christ, who is God, could die, he quotes this Place of the first Epistle to the *Corinthians*, Chap. xv. *Because Christ is dead; and says, Christus mortuus est, id est unctus: id quod unctum est, mortuum ostendit, id est carnem, i. e.* Christ is dead, that is to say anointed: His being anointed, shews him dead, that is to say, the Flesh. That those Particles, *that is to say anointed*, are not related to the Particle *dead*, but the Particle *Christ*; which notwithstanding those Particles are not placed immediately after the Particle *Christ*, to avoid an Interruption of the Order of the Apostle's Words.

It may be urged farther, that if he supposes the Particle *this*, for the Bread, there is no Consecration, because the Words are not pronounced according to the Sense intended by Christ in the Words.

It is answered to this, that *Tertullian* does not give in that Place dogmatically, the legitimate Form to be used in the Consecration of Christ's Body, but explains only the Manner whereby is made the Conversion of the Bread into Christ's Body.

Note, That instead of proceeding to give the Proofs extracted by the Catholics from the *Councils*, antient Fathers, and the antient Belief of the Church, in Defence of their Sentiments of the real Presence, and of the Transubstantiation; I'll content myself with quoting them, when I shall want them to answer the Objections of their Adversaries; and in the same Order themselves employ them, to prove that their Belief on that Subject is not a modern one, as the *Calvinists* reproach them. And as they maintain that that Belief is of the antient Church, which they endeavour to prove by Passages extracted from the Fathers who have lived in the different Ages of the Church; I'll examine carefully, if their Pretension is just.

Some of those they call *Sacramentarians*, object to them, that till the second Council of *Nice*, no Mention was made of the real Presence; and others pretend, that the Doctrine of the real Presence, and Transubstantiation, was invented by *Paschasius*, a Monk who lived in the ninth Century.

To this the *Roman Catholics* answer, that even in *Berengarius's* Time, who is considered as the Chief of the *Sacramentarians*, the universal Church declared openly against the Belief of the *Calvinists*, in condemning *Berengarius*, in a great Number of Councils of *France* and *Italy*. That *Berengarius* himself abjured several Times his Heresy, and according to *William of Malmesbury*, died in the Catholic Faith. That therefore we see, in the Year 1053, where the first Council of *Rome* was assembled by Pope *Leo IX.* against *Berengarius*, that the universal Church was united in the Faith which the *Roman Catholics* profess.

From these general Observations they proceed to more particular Proofs; and begin by *Adelmannus*, who was educated with *Berengarius*, under the Conduct of *Fulbert*, Bishop of *Chartres*, and who having learned in *Germany*, the News of his Opinions, in the Year 1035, according to Cardinal *Baronius*, informs *Berengarius*, in the Letter he wrote to him on that Subject, that his Sentiment was considered as manifestly heretical; *It is rumoured abroad*, says he to him, *that you are separated from the Union of the Church, and that you have a Doctrine contrary to the Catholic Faith, on the Body and Blood of the Lord, which is immolated every Day, thro' the whole Earth, on the holy Altar.*

The next they call for their Advocate, is *Hugo*, Bishop

Bishop of Langres, who reproached Berengarius that his Doctrine had scandalized the whole Church, *universalem ecclesiam scandalizas*.

They say further that a Bishop of Liege being consulted by Henry I. King of France, in Relation to the Conduct he should observe towards Berengarius; answered that his Heresy was so clear, that there was no need of a Council to condemn it. That Durandus, Abbot of Troarn, calls Berengarius's Disciples, despicable and infamous, who being commendable neither by their Piety, nor their Doctrine, contradicted the Fathers and the Doctors of the Church, and what the Catholick Church taught through the whole World, *quod catholica per orbem universum prædicat ecclesia*. That Lanfranc at the Beginning of his Book, reproaches Berengarius of being full of Arrogancy, and advancing a Doctrine contrary to the whole Earth, *Superbia fastu plenus contra orbem sentire cepisti*; and with having wrote against the Catholick Truth, and the Opinion of all the Churches, *Contra catholicam veritatem & contra omnium ecclesiarum opinionem*. They are positive that Lanfranc proves in the 4th Chapter of his Book, that Berengarius's Doctrine was condemned generally by all the Faithful, either Ecclesiasticks or Seculars, and was maintained but by a small Number of Schismatics, *paucissimos Schismaticos*. And that after he has explained in the 18th Chapter, the Catholick Doctrine in these Terms, *We believe that the terrestrial Substances of the Bread and Wine, being divinely sanctified on the Table of the Lord, by the Priest's Ministry, are changed by the ineffable, incomprehensible, and miraculous Operation of the Omnipotency of God, into the Essence of the Body of the Lord, nothing remaining but the Species of the Bread and Wine, lest the Sight of a raw and bloody Flesh should make us nauseate. The Body of the Lord still remaining in Heaven at the right Hand of God the Father, where he is entirely whole, entirely incorruptible, entirely inviolable, and entirely immortal*. He adds, *this is the Faith of the Church, which being spread through the whole World, is called Catholick, has been professed in all the Centuries of the Church, and is still professed*. That he repeats the same Thing as evident, and undisputed, in the 8th, 17th, 19th and 21st Chapters. And does it with so much Confidence in the 22d, that he presses Berengarius to inform himself of the Sentiment of all the Christians of the World, in the East and West. *Ask*, says he, *all those who have some Knowledge of the Latin Tongue, and of Latin Books. Ask the Greeks, the Armenians, and generally all Christians of what Nation soever, and they'll all answer you, that they hold that Faith which we all profess*. And therefore concludes, say they, that if the Doctrine of Berengarius was true, the Church should have perished. *If what you believe and maintain*, says he, *with regard to the Body of Jesus Christ, is true, what the Church teaches through all the Nations of the World, is false: For all those who call themselves Christians, and bear with Pleasure that glorious Name, glory in receiving the true Flesh and the true Blood, which Jesus Christ has taken from the Virgin Mary. But if the Faith of the universal Church is false, the Church must certainly have perished, or has never been*.

That Guilmont, Bishop of Aversa, and Disciple of Lanfranc, but who has wrote almost at the same Time against Berengarius and his Disciples, shews as well as his Master, that the whole Body of the Church was contrary to the Berengarians. And tells them in his third Book, that they had not in their Party so much as a single Town, or a Village. *Neque enim eis vel una civitatula, vel etiam una villula concessit*; and maintain that Berengarius's Opinion was considered as new, and as having never been in the Church before him. *Notissimum est*, says he, *Lib. 3. hoc tempore, priusquam Berengarius insinisset, hujusmodi vesanias nunquam fuisse*.

But Aubertin, who has embraced the Doctrine of Berengarius, and undertook its Defence, is of a quite different Sentiment: For he pretends that the whole Christian World was united in the Sentiment, that the

Eucharist was the Body of Christ but in Sign and Figure, or else in Virtue and Efficacy, till the Year of Christ 600. He confesses afterwards, that the Belief of the real Presence could not be established at once. *It cannot be imagined*, says he, *that those Abuses of the Transubstantiation, and of the real Presence, could be produced at once, like Mushrooms*. That Change has happened by degrees: *Mutatio paulatim facta est, & tandem per anfractus eo proventa*.

Afterwards he shews those Degrees, through which he makes that Belief run; and places the first towards the Year 635, and endeavours to prove that Anastasius Sinaites, a Monk of the Mount Sinai, has laid the first Foundations of it; in a Treatise he composed against certain Hereticks called Gayans, where he says; that what we receive in the Eucharist, is not the Antitype but the Body of Jesus Christ. On this he accuses that Monk of having innovated the Doctrine and the Language of the Church; the Doctrine, by teaching not the real Presence, but the Union hypostatick of the Divinity with the Bread, through Means whereof the Bread was made the Body of Jesus Christ, and the Wine his Blood, because being united to his Person, they were consequently united to his Body and Blood: The Language, because, says he, it had been always granted, till then in the Church, that the Bread and Wine were Antitypes of the Body and Blood of Jesus Christ.

But as this Opinion, which Aubertin attributes to Anastasius, has no other Foundation but his Fancy; Blondel pretends on the contrary, that he has only innovated the Language of the Church, and has not altered her Doctrine.

Aubertin pretends afterwards, that these two Innovations were embraced by Germanus, Patriarch of Constantinople, in the Year 720, and afterwards by the Bishops of the second Council of Nice, in the Year 787; by Nicephorus, Patriarch of Constantinople, in the Year 806: That the same Language passed from the East into the West, where it was received, as it appears by the Books which Charlemagne caused to be made at the Council of Frankfort, in the Year 794; where that King and those Bishops decide, that *the Eucharist is not the Image of the Body of Jesus Christ, but his proper Body*. So that according to Aubertin's History, it should be concluded, that the Belief of the Impannation of the Word, i. e. of the Assumption of the Bread in Unity of Person, had spread universally; in less than a Century, in the eastern and western Church.

The Catholicks, on their Side, pretend that this History of Aubertin is a mere Fable; the Contradictions and Absurdities whereof (as they call them) they endeavour to shew in the following Manner.

First, what Appearance is it, say they, that Anastasius, who could not be ignorant of the Faith of the Church of his Time, could produce, *en passant*, and without Design, an Opinion which would have been formally opposite to it, and produce it without declaring that he advances it contrary to the common Opinion; but rather as a certain and unquestionable Thing which wants no Proof? So that what Anastasius says; that *the Eucharist is not Antitype*, i. e. a Sign of the Body of Jesus Christ; does not shew that he had changed the Belief of the Church; but only that it was a certain and undubitable Thing in the 8th Century; that the Eucharist was not a simple Image of the Body of Jesus Christ, but the proper and real Body of Jesus Christ.

Secondly, it is absolutely ridiculous (continue they) to suppose, as that Minister does it; that the Eastern Church which was full of the Books of St. Basil, of the two Gregories, and of St. Chrysostom, which made the chief, and almost the sole Study of the Greeks, had forsaken the Belief and the Language of those Fathers, and the Faith in which she had been instructed; to regulate her Language and her Belief, on a single Passage of the Book of a Monk of Mount Sinai; but that it is still more out of all Appearance to make that Change pass into the West, and have it received all on a sudden, by the Bishops assembled at Frankfort;

since none of those Bishops understood *Greek*, and that the Ignorance of that Tongue made them commit several Errors of Fact, in giving a bad Interpretation to the Sentiment of the Fathers of the 2d Council of *Nice*, and confounding the Council of the *Iconoclastes* with that œcumenical Council, because they were no otherwise informed of what had been done in the Western Church, but by a *Latin* Translation full of Faults. And consequently defines in that Book subscribed to by the Bishops, *Lib. 4. c. 14. That Jesus Christ has not conferred on us an Image, but the Sacrament of his Body; that the Eucharist ought not to be called an Image, but Truth; not a Shadow, but a Body; not a Figure of Things to come, but what is represented by the Figures*, when he observes, *that Jesus Christ has not said of what he gave to his Apostles: It is not the Image of my Body, but it is my Body, which will be given for you, and this is my Blood which will be shed for several*. When he says, *that what was done in the Institution of the Eucharist, was not done in Figure, but in Reality*. It is not a Proof that he had borrowed that Language from the *Greeks*, whom he had been glad to contradict, and whose Books he had never read; but, on the contrary, is an undubitable one, that the *Latin* and *Greek* Church were perfectly agreed on the Point of the *Eucharist*.

Thirdly (urge they further) or that Book and that Passage of *Anastasius*, have remained very little known, and consequently have not been capable to produce so great a Change, or if it be supposed that they were famous, and in every Body's Hands, how has it happened, that in proposing, as the Ministers pretend, an Opinion contrary to the Sentiment of the whole Church, no Body has complained of it, no Body has accused that Author of Error, no Body has wrote against him, nor against any of those who have espoused his Sentiment? For it must be observed, that the Opinion of the Impannation of the Word which *Aubertin* attributes to *Anastasius Sinaites*, and to *St. John of Damascus*, though very different from the Opinion of the Catholics, is notwithstanding very opposite to that of the *Calvinists*, since by means of that personal Union of the Divinity with the Bread and Wine, the Bread becomes truly worthy of Adoration, as the Humanity of *Jesus Christ*. That Body of *Jesus Christ* is taken by the Mouth, enters into the Wicked, remains, though not used, which are all Points directly contrary to the Doctrine of the *Calvinists*. Besides, that hypothetical Union of the Bread with the Divinity, would be wholly miraculous, and wholly incomprehensible, and therefore would include as many Difficulties as the Belief of the real Presence. What Appearance, then that an Opinion so different from the Sentiment wherein they pretend the Church was then, had notwithstanding been embraced by the whole Eastern Church instructed in another Faith, without the least Trace of that Change could be seen, and even without those who had thus changed their Belief could perceive it? And how could the *Nestorians*, who were then in great Numbers in the East, and denied the personal Union of the Word with the human Nature of *Jesus Christ*, admit of that Unity of the Divinity with the Bread? And if they would not admit of it, why have they not reproached that Doctrine to the Catholics, and obliged them by their Reproaches to justify and defend it? Why have not the *Iconoclastes* (whom the Ministers pretend to gain on their Side, because they have call'd the *Eucharist* the Image of the Body of Christ, though they confess at the same Time, that that Image is the proper Body of *Jesus Christ*) reproached those who stood for the Images, who, according to *Aubertin*, were of the Opinion of *Anastasius Sinaites*; that they had introduced not only a superstitious Worship towards the Images, but a true Idolatry, by teaching that the Bread was united to the Word, and as such ought to be adored.

All these Absurdities, conclude they, shew plainly, that it is absolutely false, that any Innovation happen'd at that Time on the Subject of the *Eucharist*; and also equally false, that the Belief of that Century,

witnessed by *Anastasius*, by *St. John Damascenus*, by *Germanus*, Patriarch of *Constantinople*, by the second Council of *Nice*, by *Charlemagne*, and the Council of *Frankfort*, was, that the Bread was united personally to the Word, and not changed into the natural Body of *Jesus Christ*, that Supposition having no Foundation in the Writings of that Time; it being but a Chimera found by *Aubertin*, that he may not be obliged to confess, that the Belief of the real Presence was universally received in the Church in the seventh and eighth Century.

First, urge they again, not only their Words give no Room to that Explanation, but are formally contrary to it. *Anastasius Sinaites* says, *we do not call the Communion Anti-type of the Body of Jesus Christ, or simple Bread, but we receive in it, the true Body and the true Blood of Jesus Christ, incarnated in Mary Mother of God*. *Germain*, Patriarch of *Constantinople*, says, *Theor. rer. Eccles. Tom. 8. Bibli. P. P. that the Holy Ghost changes the Gifts offered, into the precious Body of our Lord Jesus Christ, and what is in the Chalice, into the precious Blood of the great God, which has been shed to give Salvation and Life to the World*. Words which express perfectly the Faith of the real Presence, and exclude formally that pretended Union of the Divinity with the Bread and Wine. Because by Means of that Union, the Bread and Wine could very well become the Bread and Wine of *Jesus Christ*, but not the Flesh and Blood of *Jesus Christ*; because the Bread subsisting in the Being of the Bread, could not be Flesh, while even united to the Word, who is invested with our Flesh. Secondly, these Authors declare, that what is in the Chalice, is the Blood of *Jesus Christ* shed for the World's Salvation, and declare further, that it is not in Figure, but in Truth: Which cannot be understood but of the natural Blood of *Jesus Christ*; it being impossible, that Wine united to the Blood, could be that Blood shed for the Salvation of the World, otherwise than metaphorically. Thirdly, *St. John Damascenus* excludes, still more formally that chimerical Union. For he declares, *Lib. 4. de fide ortho. c. 14. that the Body of Jesus Christ, truly united to the Divinity which is in the Eucharist, is the same which is born of the Virgin Mary; not that the Body he has taken from the Virgin Mary descends now from Heaven, but because the Bread and Wine are chang'd into the Body and Blood of God*. And he adds lower, *that that Body into which that Bread is changed in a marvellous Manner, by the Invocation and Coming of the Holy Ghost, is not a Body different from that of Jesus Christ, but one and the same Body*. Fourthly, it is without the least Appearance, that the Eastern Church has entered without perceiving it, in an Error which is clearly condemned by the Books of the Fathers of the preceding Centuries. For *St. Ignatius* the Martyr says, *Epist. ad Smyrn. that the Eucharist is the Flesh of the Saviour which has suffered for our Sins*. *St. Chrysostom* in an infinite Number of Places, says, *that what is in the Chalice, is the Blood which has ran from the Side of the Saviour, pierced upon the Cross*, *Hom. 24. in Epist. ad Corinth. that in all the Places of the Church, there is but one Jesus Christ, who is entire in one Place as well as in another, having every where but one Body*. *Hom. 17. in Epist. ad Corinth. That he who sits at the Right Hand of God, is in the Priest's Hands*, *Lib. 3. de Sacerd. c. 4. and that we see the same Body which was ador'd by the Magi*, *Hom. 24. in Epist. ad Corinth.* How could it happen then, that the whole East by a general Blindness, in reading the Works of the Fathers, would embrace a Sentiment opposite to theirs. For it cannot be answered that those Expressions were taken by those of the 7th and 8th Century, in a metaphorical Sense, and that when they read that the Bread was changed into the Body of *Jesus Christ*, they understood it was changed in the Figure of the Body of *Jesus Christ*, since that Explanation is formally condemned by the Authors to whom *Aubertin* attributes the Opinion of the Impannation of the Word. Fifthly, there is no Author to whom that Sentiment can be attributed with less

less Likelihood than to *Anastasius Sinaites*, because the chief Reason which could engage those to it, who form their Belief rather on their Reason, than on Faith, is the Difficulty to conceive how a Body could be in several different Places at once. But that Difficulty is void with Respect to *Anastasius*, since he teaches formally, as *Aubertin* acknowledges it, *Lib. 3. p. 906.* That the same Body can be, by Miracle, in several Places at once.

Therefore (conclude they again) all that Innovation of Doctrine is a mere Chimera; and it is not only clear that the Church of the 7th and 8th Century, had a Belief different from that of the *Calvinists*; but it is clear, likewise, that she believed the real Presence, not by any Change which had happened, but because she had received that Faith, as well as that of the other Mysteries from those who liv'd in the sixth Century, in which the *Calvinists* agree, that the Doctrine of the Church was free from Corruption. That if *Anastasius Sinaites*, *St. John Damascenus*, the Bishops of the Council of *Nice*, and those of *Francfort*, have made a Difficulty to call the Species or Symbols by the Name of Anti-types after the Consecration, tho' some Fathers have called them by that Name, it is not difficult to conceive, that such Thing was done, not only without any Change of Belief, but in some Measure without any Change of Language. For there must be distinguished in the Words of Image, Figure, and Anti-types, as in several one like Things, two Sorts of Significations, the other natural and original, the other common and popular. The natural Signification of these Words, denotes nothing else but a simple Representation; and as an invisible Thing, tho' present, can be represented by something visible, corporeal, and external; it does not follow that a Thing is not present, because represented by some visible Image. Therefore we commonly say, that the Face or Eyes are the Images of the Soul; and, notwithstanding, those who say it, believe at the same Time, that the Soul is present in the Eyes and in the Face. The fiery Tongues were the Figure of the Holy Ghost who was present in them. The external Ablution is the Figure of the internal one in Baptism, and are nevertheless joined and united together; one must renounce common Sense to amuse himself to dispute on that Point, or to maintain obstinately, as the *Calvinists* do, that those Words include always, and by their Nature, the Absence of the Thing represented.

But, nevertheless, it is true, that as ordinarily the Things figurated are not joined to the Figures, and that seldom any Thing is represented by Images, besides the Absent; another popular Use has been made of those Words, in which to be the Figure and to contain the Truth figurated, are two Things, in some Measure, opposite to one another. And it is in this second Sense, that the Fathers have often said that the Figure did not contain, and was not the Truth.

These two Kinds of Significations subsist both in the Manner of Speaking of Men, and forming an apparent Contrariety in the Words, are united without Difficulty in the Sense. For according to these two different Significations, it is true to say that the *Eucharist* is Figure, Image, and Anti-type of the Body of *Jesus Christ*, and that it is not Figure, Image, Anti-type of the Body of *Jesus Christ*. For it is not Figure, Image, and Anti-type, according to the popular Signification of that Word, which excludes the Truth; but it is Figure, Image, and Anti-type, according to the natural Signification of that Word, which squares with the Truth, and which denotes no other Thing, but only that it represents the Body of *Jesus Christ*, though at the same Time it contains it. Hence it has happened, that the Fathers taking sometimes these Words in their natural Signification, had made no Difficulty to admit that the *Eucharist* is the Image and Figure. But because it contains really *Jesus Christ*, they call it, likewise, Truth, and oppose it to the Figure and Images of the old Law, in taking then the Word Image in its proper Signification. *That Blood*, says *St. Chrysostom*,

Hom. 45. on St. John, being in Figure, expiated the Sins; that if its being in Figure has had so much Virtue, and so much Efficacy; if Death has feared so much the Shadow of that divine Blood, how much more will it be afraid of the Truth itself? And because that popular Signification of the Word Figure, which excludes the Truth, is the most common in the Manner of Speaking of Men; and that, besides, the principal Part of the *Eucharist*, is not that which is external and visible, according to which it is a Figure, but the internal and invisible which is the Body of Christ; it has happen'd, that when the Church has no longer been obliged to hide that Mystery to the Pagans, which had, sometimes, engaged the Fathers to use oftner the Words, Figure, and Image, when they spoke of it before the Pagans and *Jews*, the Words, Figure, and Anti-types, have been used but very seldom; and that Mystery has been rather expressed by the principal Part, which is the Truth of the Body of *Jesus Christ*. Therefore at the Time of the second Council of *Nice*, it was very rare that the consecrated Species were called by the Name Anti-types, though that Name had been often given to them by the antient Fathers. Thus the Catholics answer, the first Degree of Innovation objected to them by *Aubertin*.

But *Aubertin* returns to the Assault, and starts up a second Degree of Innovation, which he supposes will be attended with more Success than the first, by placing it in the ninth Century, and chusing *Paschasius Ratbert* for the Author thereof, whom he represents, *p. 922. as very much embarrassed in his Conceptions, and contradicting himself, so that it is almost impossible to know what he would say, or what was his Sentiment*; though, at the same Time, he mentions several great Men who opposed it, as *Rubanus*, *Amalarius*, *Heribaldus*, *Walfredus*, *Florus*, *Lupus*, Abbot of *Ferrara*, *Frudegardus*, *Ratramnus*, *John Scot*, *Prudentius*, Bishop of *Troy*, and *Christianus Drutmar*. And thus conducting his History to the tenth Century; and when arrived to it, he declares that it is from the End of the ninth Century to the Beginning of the eleventh, that the Opinion of the real Presence has occupied all the Minds of the whole Earth. *Hinc contigit*, says he, *p. 493. ut in sequenti quamvis litteratiores facti, hac tamen opinione una cum lacte imbuti illam tanquam veram obtruserunt.*

The Roman Catholics consider this as another Fable of *Aubertin's* Invention, which they pretend is already destroy'd before-hand, by what they have said of the first Innovation; because if the Faith of the real Presence was received, without Contradiction, by the whole Church, in the seventh and eighth Century; it is ridiculous to make it appear first the first Time in the ninth. But however, they pretend to shew in a more particular Manner, what they are pleased to call the Ridicule of this second History of *Aubertin*, by the following Reflections.

First, they say, that the Mystery of the *Eucharist* being the principal Part of the Worship of the Christian Religion, it must be confessed that the Christians participating often of it, believed with a distinct Faith, either that *Jesus Christ* was really present in the *Eucharist*, or was really absent from it; since it cannot be reasonably imagined that both Opinions have subsisted at the same Time, and form'd two considerable Parties in that Century. For as there is no Century where there have been more Councils, especially in *France*, nor a greater Number of learned Men, it is not reasonable to believe, that if the Body of the *French*, or of the universal Church, had been divided by those two Opinions, diametrically opposite to one another, on the most important, and the most common of our Mysteries; no mention had been made of it in some of those Councils, nor no Measures taken to remedy so strange a Division. That an Error advanced in a Book very little known, and followed but by few Persons, might be neglected by the Church; but that a capital Error, such as would be that of the real Presence, if it was an Error, should be suffered in the Church, and that Bishops, who could not

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have been ignorant of the Division of their Flocks, had not so much as mention'd it in more than 80 Councils, is a Thing entirely contrary to common Sense: For it cannot be said that those Bishops have believed that Division so insignificant, that they judg'd it compatible with the Unity of Communion, since from the Diversity of those two Beliefs, it follows, or that the one had been Idolaters, Superstitious, and Novators; or that the others had been Impious and Hereticks: And that there is no Division less compatible with the Communion of the Church, than that which disunite the Faithful in the very Communion, which is the *Eucharist*, and which changes the whole religious Worship of the Religion. Therefore as the Generality of the Church must have been in one of these two Beliefs, the *Roman* Catholicks ask, if it was in that of the real Presence, or of the real Absence? which they pretend to decide by the following Reasons.

Notwithstanding the Animosity of the *Calvinists* against *Paschasius*, say they, they are obliged to confess, that he was a Man famous in his Time for his Piety and Doctrine. However, this Man so famous, maintaining the real Presence in 818, in the Book he wrote of the Body and Blood of the Lord; and since in his Epistle to *Frudegardus*, and in his Commentaries on St. *Matthew*, proposes it every where as the sole and universal Belief of the Church of his Time. He observes further, that though some Persons had erred in Secret on that important Point, through Ignorance, none however, had ever attempted to declare publicly against a Truth so well known to all the World. He says in the same Place, that whoever was to contradict that Truth, would oppose the whole Church, and commit a very great Crime, in not believing what the Truth itself teaches us, and all the Christians believe. But if the Doctrine of the real Presence, which *Paschasius* maintains in his Epistle to *Frudegardus*, and in all his other Books, had not been the common Belief of the Church, and if it had been the first Time it had appeared in the World, had he not made a Divorce with his Reason to say as he does, of an Opinion which had never been heard of, and of which he had been the first Inventor, that there was no other but that in the Church? That Extravagancy is not human, and it cannot be supposed that *Paschasius* had been in it, only for some Time, but during his whole Life, which was pretty long; since he wrote the same Thing at several Times, at the Beginning in his Youth, and in his old Age.

It must be supposed, continue they, to support the Pretence of *Aubertin*, that the Folly of believing that the Faith of the real Presence was the common Doctrine of the Church, had communicated itself to a great Number of other Persons of that Time. For Example, it had communicated itself to *Frudegardus*, who wrote on the Subject of the *Eucharist*; for that young Man declares to him in his Letter, that the Doctrine of the real Presence had been his first Belief; but that he had been since inclined to doubt of it by some Passages of St. *Augustin*, whereof he asks the Interpretation of *Paschasius*. He does not say that it was the Consent of the Church of his Time, which makes him doubt, but a Passage of St. *Augustin*, which he could not understand, nor reconcile with the Faith he had learned in the Bosom of the Church.

That same Folly had communicated itself to *Hincmarus*, who speaking of some Persons he does not name, says, *lib. de prædest. c. 31. that there are Persons who being great Admirers of the Novelty of Words, and to acquire a vain Reputation, advance Propositions against the Catholick Faith, viz. that the Sacrament of the Altar is not the true Body, nor the true Blood of the Lord, but only the Remembrance of his true Body and of his true Blood.*

As to the Adversaries which the *Calvinists* oppose to *Paschasius*, and which, in *Aubertin*, and *Blondel's* Sentiment, amount to twelve, viz. *Amalarius*, *Rabanus*, *Heribaldus*, *Bertram*, *John Scot*, *Frudegardus*, *Florus*, Deacon, the Council of *Cressi* assembled in 838,

Lupus, Abbot of *Firrieres*, *Prudenicius*, *Walfridus*, *Christianus Drutmar*; the *Roman* Catholicks take at once from that Number, *Walfridus*, *Florus*, *Lupus*, and *Christianus Drutmar*; in whose Writings, say they, there can't be found the least Shadow of Opposition to *Paschasius*; but on the contrary, several Proofs are found for the real Presence, as when *Walfridus* writes, *De reb. Eccles. c. 17. That since the Son of God assures us that his Flesh is Meat indeed, and his Blood Drink indeed, it must be understood, that the Mysteries of our Redemption, that is to say, the Eucharist, are truly the Body and Blood of the Lord; that we should believe at the same Time, that they are the Pledges of the perfect Union, which we have already in Hope, with our Chief, and we are to have one Day actually.* And when *Florus* teaches in the Explication of the Mass, *That the Oblation, though taken from the simple Fruits of the Earth, is made for the Faithful, or to the Faithful, the Body and the Blood of the only Son of God, by the ineffable Virtue of the divine Benediction.*

The Catholicks take off *Hincmarus* also, because accused of opposing the real Presence, in one single Word only, which the *Calvinists* are pleased to attribute to him. For the others, it does not appear, say they, that they have attacked *Paschasius* by Name, which shews plainly that they have not considered him as the Author of a new Opinion, and unheard in the Church, since they had not been afraid to name such a Person, and had even accused him before the Ecclesiastick Judges. But to examine them more in detail, they begin by *Amalarius*, and say, that if he had wrote nothing of the *Eucharist*, but what is found in the Books of the ecclesiastical Offices, there had been no room to rank him among *Paschasius's* Adversaries. But because the Church of *Lyons* in the Book of the Three Epistles accuses him with having wanted to poison *France* with Books full of Errors and of phantastical Opinions; and declares that those Books deserved to be burnt; and that a Manuscript of *Florus*, written expressly against that *Amalarius*, reproaches him with having advanced Errors against the *Eucharist*, which had been condemned in 838, by a Synod of Bishops assembled at *Cressi*. And because the Manuscript Epitome of *William of Malmesbury*, joins him to *Heribaldus* and to *Rabanus*, and accuses them all three of the Heresy of the *Stercoranists*, it seems as if there was no room to doubt that he had maintained some Error on the *Eucharist*; but that Error having remained almost unknown, has been the Occasion that some *Calvinists*, as well as *Roman* Catholick Theologians, have spoke variously of it.

Usher, an *English* Protestant (continue they) to draw some Advantages from it to his own Party, supposes that *Amalarius* was in the Doctrine of the Catholicks, and therefore pretends that it was the Doctrine of the real Presence which was condemned in that Author by the Synod of *Cressi*, and by *Florus*, Deacon of *Lyons*. *Aubertin* on the contrary, has judged, that it was more advantageous to him, to attribute to *Amalarius* the Opinion of the *Calvinists* to find some Partisans in the 9th Century. But not to be obliged to confess, by a Consequence from that Supposition, that *Calvin's* Doctrine has been condemned in the 9th Century by a Synod of Bishops, and by the Church of *Lyons*: He takes no Notice of the Synod of *Cressi*, and attributes what the Church of *Lyons* says of *Amalarius*, to a Jealousy. But *Blondel*, instigated by the Desire he had to raise Adversaries against *Paschasius*, has fallen on that Subject in one of the most visible Contradictions, wherein an Author could fall. For finding on one Side some Advantage in the Opinion of *Usher*, who renders *Calvinist* the whole Synod of *Cressi*, who has condemned *Amalarius*. He takes that Part of it, and supposes with him, that the Council of *Cressi* was in the Doctrine of the *Calvinists*, and contrary to *Paschasius*. But finding besides, in the Manuscript Epitome of the Book of the divine Offices, of *William of Malmesbury*; that *Amalarius*, *Rabanus* and *Heribaldus*, had wrote against *Paschasius*, without considering that such Supposition was contrary to that of *Usher*; he makes likewise of *Amalarius*, an Adversary of *Paschasius*; to that